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THROUGHOUT Europe a great and lively interest was felt in the Exposition of the products of French industry recently opened in Paris, and strangers from the most remote parts of the civilized world hastened to that metropolis to see what had been achieved, and to obtain as many hints as possible for the improvement of manufactures in their respective countries. Our visits to the Exposition had this double purpose: we were anxious to see the progress of the industrial arts in France; but we were equally anxious to render our report of this progress contribute as much as possible to the advancement of the industrial arts at home. Commercial jealousies and rivalries have wrought so much evil to humanity that we should not have undertaken our present task if we believed that our description would be likely to increase such feelings at either side of the Channel; but, as we believe such feelings to be as utterly absurd as they are clearly mischievous, we trust that the improved spirit of our age will permit men and bodies of men to discover that the advance of one man or one nation does not necessarily involve the retrograde movement of the other. On the contrary, it will be found that, with different nations as with different classes of the same community, each as it improves, instead of throwing the others back, communicates to it a share of its own success, and thus the profit of one is identified with the common good of all. Both individuals and nations are at length beginning to learn this great truth, and instead of commercial envy there is growing up a healthy spirit of commercial emulation, based on a conviction that the universe of industry is sufficiently wide to afford employment to all the nations of the earth, without their having any occasion to impede each other's movements.

As the expositions of industrial art, hitherto confined to France, are about to be introduced into Prussia, Austria, Holland, and Italy, and as some discussion has arisen respecting the possibility of introducing them into England, we shall preface our description with a short history of the rise and progress of these exhibitions in Paris. Without attempting to throw any blame on the successive administrations which have held power in England since first the system was introduced, we may lament the public apathy on the subject. Here is a plan devised by a great nation, and executed on a great scale, for the purpose of advancing the industrial arts; assuredly it is the interest of a nation, which is so dependent for its continued prosperity on its manufactures as Great Britain, to inquire how far the French experiment has been successful; whether its results indicate an example to be imitated or a failure to be avoided, and whether, should it appear worthy of imitation, the same means and appliances are available to render it as successful in London as it was in Paris.

Periodical exhibitions of the products of industry were first commenced by the French Government in 1798, and every successive *Exposition* has displayed a marked improvement over that by which it was preceded. This progress has been particularly remarkable since the Restoration; the arts of peace were regarded as the means of affording triumphs not less brilliant and far less costly than those of war, and a party was formed in France, which continually, though silently, increases in strength, having for its object the development of the material and industrial resources of the nation, and the preservation of both from the ruin with which they were menaced by the popular passion for military glory. "Young France," as the hot-headed youths of the schools and universities have denominated themselves, has not forgotten the ambitious passions of the revolutionary age; such traditions are the inheritance of every generation, from fifteen to five and twenty, that comes upon the stage of Parisian life; but, as each generation ripens into maturity, the ardour for war fades away and gives place to an honourable desire to raise the national character by the cultivation of the arts and sciences, and the development of all the means which can tend to the physical or intellectual advancement of of mankind. We look upon the French Exposion of this year as a manifesto in favour of peace, published by the middle classes of France, showing that their interests are essentially connected with the preservation of public tranquillity externally and internally—appealing to their countrymen against a course of policy which would close foreign markets against such results of French industry, and protesting against wars which would effectually destroy production by putting an end to consumption. Some of the journalists most conspicuous for their devotion to the cause of war and tumult have assailed the Exposition on this very ground: they declare that it is likely to damp the warlike spirit of the nation by exhibiting the great amount and importance of the interests which are all but absolutely dependent on the conservation of peace. The value of such a lesson cannot easily be overestimated; it will be well not only for France, but for the world, if the energies which were long directed to the desolation of the Continent be henceforth applied to internal improvements, and the triumphs of peaceful industry be henceforth preferred to the empty glories of useless conquests and barren victories.

It has been said that these periodical Expositions are more likely to gratify the vanity of individual manufacturers than to promote a healthy spirit of emulation in the industrial community; and great stress has been laid on the example of England, where no such stimulus to industry and ingenuity has ever been applied. But this objection is based on a false view of the principles on which the Exposition is founded; its directors do not seek—indeed, they will not admit—the exceptional *chef-d'œuvre*, the single elaborated specimen which only serves to show what may be done; they require that the objects presented should be those of common and continuous production, such as the manufacturers have on sale in their warehouses before and after the Exposition. The Exposition is designed to be strictly utilitarian, having in all its aspects and bearings a direct practical tendency; it is not—

> "As in Irish houses, where things are so so,
> One gammon of bacon hangs up for a show;
> But for eating a rasher of what they take pride in,
> They'd as soon think of eating the pan it is fried in."

Without at all intending a pun, we are gratified in being able to say that there is no such "gammon" in the French Exposition; on the contrary, every thing exhibited is designed more for use than for show, and places before the visitor the actual condition of that branch of industry to which it belongs. It is there decisively proved that the progress of each branch of industry is advantageous to all, and that their common advancement tends directly to the profit of consumers. Each producer displays the fruits of his industry and intelligence—to his rivals, that they may see in what they are surpassed; to consumers that they may perceive the decreased price at which good articles may be obtained. All true industrial progress consists in lowering the cost of production, and the consequent price of articles to consumers. For this reason it would be deirable to have the means of comparing the cost of production at different epochs, and also the advance made in the perfection of manufacture. We believe that silks of the most beautiful fabric can be obtained at lower rates than the coarsest would have cost half a century ago.

This is a point on which the Exposition has served to disabuse the people of France of a common and mischievous error, which had long tended to check the progress of industry. We have said that the true test of progress is the amount of cost saved to the consumer; it was thence falsely inferred that the producer lost all that the consumer gained; but as every increase in cheapness is followed by an equal increase in the extent of consumption, the producer found that small profits on large sales more than compensated for large profits on small sales; and he had this further advantage that a large market must necessarily be more steady and less liable to fluctuations than one of limited extent. Further, though in one specific relation a man may be viewed as a producer, yet in all the rest he is simply a consumer, and therefore, if he should apparently lose a little on his own article, he is more than compensated by what he gains in the diminished cost of all other articles. This beautiful illustration of the great principle of self-adjustment, which regulates every branch of commerce and industry when left free from interference and external perturbations, was strikingly manifested at the Exposition; and it was gratifying to find how generally and how readily its truth was admitted, and its importance appreciated.

Trade jealousies have been greatly abated by the Exposition; every exhibitor seemed to be aware that he had something to learn from his neighbours, and something to teach them in turn. He felt that, if he revealed some secret of production, that he in turn discovered the secrets of others, and that this interchange of information was not less profitable to himself individually than to the general community. The age of secrets in trade must ever be an age of darkness; in days gone past, when an inventor hid his light under a bushel, his neighbours around him did the same, and each stumbled in a feeble glimmering when all could have profited by the combined illumination. It is very rarely that an invention comes perfect and mature from the brain of the inventor, like Minerva from the head of Jupiter; in nearly all cases men invent by parts; there is a division of labour necessitated by the limited extent of human intelligence, which can only be rendered available by intercommunication and comparison. We might easily illustrate this truth from the history of mechanical inventions, but the dissertation would lead us too far from our immediate subject.

A few words may be permitted on the subject of such expositions as a means of national education. It is impossible that persons could have free access to a range of galleries, about six miles in their whole extent, covered with the richest productions of a nation's Art, and exhibiting choice specimens of the style of every epoch from the days of the Pharaohs to those of Louis Philippe, without having the taste cultivated and the judgment improved. The classical shapes of Greece, Southern Italy, and Etruria; the capricious and fantastic forms of the middle ages; the varied graces of *La Renaissance*; the gorgeous ornaments of Louis XIV.; the stiff mannerisms of Louis XV., and the approaches to stern simplicity in a later age, were placed before the eye in countless abundance, and yet without the slightest confusion. Instruction was thus afforded in the most efficient and pleasing manner, and there was abundant proof that it was not less effective than agreeable. We found the spectators a more wondrous spectacle than the Exhibition itself; every object that merited attention attracted a crowd; articles that had nothing but capricious novelty to recommend them were generally "left alone in their glory." It was particularly delightful to observe the children: at first they were bewildered by the vast size of the edifice, and the multitude of objects it presented to the view; the articles of most glittering appearance had at first the greatest attractions, but as the little urchins went on grace of form commended itself to their natural taste, and was generally preferred to mere ornamental gewgaws. The multitude of public exhibitions gratuitously opened to the French people has made correct taste a part of the national character, and, to use their own proverb, "sound criticism on Art is as often echoed by a wooden clog as by a polished boot."

It would be ungrateful to omit mention of the extraordinary kindness shown to strangers. The Exposition was open to the public only from twelve to four, but tickets could be obtained for private admission in the morning. A stranger, however, on showing his passport, was at once admitted, and indeed this was the case at nearly all the places of exhibition in Paris. It was rather amusing to find that this attention to strangers was made a subject of accusation against Guizot by the Opposition journals, and was quoted as a proof of his English tendencies. In this instance, however, the great body of the French people supported the policy of the Minister, and every one we met evinced the greatest possible anxiety to render assistance to strangers.

No small share of the success of the Exposition is owing to the personal influence of the Sovereign. He spent the greater part of every Monday, when the Exposition was closed to the public, in minute examination of the several branches of industry, freely conversing with the exhibitors, inquiring into the nature of the several processes of their manufacture, and in many cases offering suggestions which evinced an intimate acquaintance with mechanical and chemical science. The leading manufacturers who had contributed to the Exhibition were welcome guests at the Palace, and Louis Philippe in every way showed that he regarded the national industry as the chief source of a monarch's just pride. It was proverbially said that, during this Exposition, the manufacturers appeared to be the true nobility of France. It deserves to be further noticed that the King of the French paid most attention to the articles connected with the comforts of the operative and working classes; he expressed a great anxiety about the economic stoves and kitchen-ranges, of which there were a great number in the Exposition, and frequently inquired whether they could be produced at so low a rate as to diminish the domestic sufferings of the lower orders during the sharp winters of Paris. Articles of clothing for the poor also engaged his attention, but in this branch of manufacture France has little chance of competing with England.

It is interesting to compare this Exposition, in its general results, with the nine by which it was preceded. The first Exposition, as we have already said, took place in 1798, when the close of the celebrated campaigns of Italy had raised the French republic to its highest pinnacle of greatness. It was a period of bright prospect; a limitless era of peace, strength, and prosperity seemed to have opened on France, and it was resolved to consecrate the epoch by an exhibition, which might prove that France might attain as high eminence by the arts of peace as had been already gained in the fields of war. The proposal was sudden and unexpected; a very limited time was allowed for preparation, and no more than one hundred and ten exhibitors came forward. Still, during the three days that the Exposition lasted, all Paris kept holiday, and the "Temple of Industry," as the place of exhibition was called in the affected style of the day, was crowded with enthusiastic multitudes, and for a season the French believed that they might attain as much glory by the exercise of the industrial arts as by their achievements in the field of battle.

It deserves to be remarked that this first Exposition was viewed as a kind of military demonstration against the British empire. "Though our exhibition has not been large," said the minister of the day, "yet we must remember that this is our first campaign, and it has been a campaign disastrous to the interests of English industry. Our manufactures are the arsenals which will supply us with the weapons most fatal to the British power." These are memorable words, and they might suggest to us that *our* factories are the arsenals which furnish the most potent weapons for the maintenance and preservation of our national greatness.

The second and third Expositions took place in 1801 and 1802. The former was remarkable for the first public acknowledgment of the merits of Jacquart, whose inventions in figure-weaving have since acquired such universal fame. In the late Exposition there were several portraits, woven by Jacquart's machines, which had all the precision and finish of line engravings. We were anxious to see some of the first triumphs of the Jacquart loom, and to have an opportunity of tracing its successive improvements; but, unfortunately, all the articles exhibited are dispersed so soon as the Exhibition closes. Should anything similar be attempted in England, we trust that an effort will be made to connect a permanent industrial museum with the periodical exhibition, so as to afford an opportunity of marking progress. In 1802 the great novelty of the Exhibition was the imitation of cashmire shawls. The texture of some of those which were then displayed, as we have had an opportunity of ascertaining by personal observation, has not been since surpassed; but their colours were not permanent, and their patterns were bad imitations of the sprawling Chinese style. It was not till after the Restoration that the French manufacturers advanced so far in geography as to learn that the Vale of Cashmire is separated by thousands of miles from China, and still farther removed from it in all the characteristics of nationality.

The fourth display took place in 1806, and was chiefly remarkable for the excellence of the textile fabrics exhibited in silk, wool, and cotton. To this day the Lyonese speak with pride of the great share which their city had in the success of that Exposition, and aver that the silks then produced have never since been surpassed in texture, colour, or design. On this occasion the French merinos, which may be regarded as the parent of all the varieties of woollen fabric now used in ladies' dresses, began first to attract notice; and it was at this time also that Mulhausen began to be distinguished as the metropolis of a manufacturing district. So little was known of Alsace in Paris at the time, that objections were made to receiving the productions of Mulhausen, as it was not known to be a French town; but this may be excused when it is remembered that only three years ago one of the largest houses engaged in the printed-stuff trade complained of the authorities of Mulhausen for not adhering to the commercial regulations of Germany or Switzerland. Napoleon took, or affected to take, a lively interest in the Exposition of 1806; but it is remarkable that no other was held during the continuance of his dynasty. It is said that the military evinced so much jealousy of the favour shown to the commercial classes that it was not deemed prudent to risk a second experiment.

It was not until 1819 that the fifth Exposition was held: that and the following Expositions of 1823 and 1827 were chiefly remarkable for their textile fabrics, particularly merinos, chalis, and cashmires. Most of the manufacturers declare that the shawls of 1827 were superior to any which have been since produced; but we were unable to obtain any evidence for the assertion, and those exhibited to us as specimens of that year were more remarkable for richness of colour than beauty of design.

After an interval of seven years an Exposition was held in 1834, in the Place de la Concorde, in four temporary edifices; it was very fairly attended, but was badly arranged and worse managed. The blunders then made were, however, valuable as guides to the management of the Exposition of 1839, which that of 1844 has scarcely surpassed. These last Expositions have been most remarkable for the number and variety of their mechanical and engineering specimens, and the excessive delight with which the Parisians (none of whom can comprehend the most simple movement of machinery) have viewed machinery which would be broken up for old iron in Birmingham or Manchester.

The statistics of these several Expositions will help to elucidate their progress:—

Exposition.	Year.	Contributors.	Medals granted.
1	1798	110	22
2	1801	220	69
3	1802	340	119
4	1806	1422	119
5	1819	1662	360
6	1823	1648	476
7	1827	1795	433
8	1834	2447	607
9	1839	3381	905
10	1844	3969	—

For the Exposition of this year, a Palace of Industry was erected in the Champs Elysées at an expense of about £30,000; in some respects the edifice was very creditable to the architect, particularly in the important points of light and ventilation; but the galleries into which it was divided were inconveniently narrow, and there were no finger-posts or any other kind of direction to help a stranger to find his way through the labyrinth. On reference to the engraved plan it will be seen that several agricultural implements and other cumbrous articles were exhibited outside the building, within the palisades by which it was enclosed. Among these the statue of Duquesne,

one of the few naval heroes of whom the French can boast, was rather whimsically conspicuous. The figure of a bold buccaneer overlooking ploughs, harrows, drills, and winnowing machines, seemed sadly out of place. This statue is designed for the town of Rouen, where it will with more propriety be erected on a pedestal, overlooking the harbour. It is a work possessing more expressiveness in the details, and more subordination of the accessories to the main design than is usual in French Art, and in this respect deserves more praise than the statue of St. Louis placed in the centre of the Palace of Industry, and which persons anxious to examine the several departments of the Exhibition thoroughly generally took as their central point of guidance. In the long central avenue of the building the colossal statue of St. Louis would have had a very imposing effect, if the line had been left open. But, though the area of the palace was from twenty to thirty thousand square yards, every available bit of space was occupied, and not only this statue but several other articles, such as carpets, shawls, and draperies, lost much of their effect from the spectators being obliged to go so near them as to be unable to take in the whole effect in a glance. This was particularly the case with a design for a public lamp-post, with which we were much pleased, and all the more because we had been annoyed by the gaudy abominations erected as lamp-posts in the Place de la Concorde. In the first general survey of the galleries of the Exposition the visitors seemed to be most struck with the size and perfection of the mirrors, which had been produced in the royal manufactory under the direction of Mr. Combes; we have seen plates of equal size from English glass-works, but we have not ever beheld such limpid purity in the glass. It seemed as if the objects were reproduced rather than reflected. Two of these mirrors were valued at £300 each, and were said to have been bought at that price for the Court of St. Petersburg.

The richest part of the Exhibition, artistically considered, was the portion devoted to glass, porcelain, and earthenware. Reserving for another place the consideration of the objects of luxury, such as vases, wine-coolers, and ornaments for splendid rooms, we shall first direct our attention to that which was at once the most novel and the most gratifying portion of the Exhibition — the improvements in the coarse kind of earthenware (*grès*)—and the efforts made to improve the public taste by introducing elegance of design into articles of common and ordinary use. Some very beautiful designs were executed in the common ware, or the material that is rarely used in England for any other purpose than the manufacture of jars and the coarsest bottles. Our attention was first directed to this part of the subject by a curious coincidence. In an article already published in the Art-Union we suggested the propriety of introducing a new design for handles into vases and other articles covered with raised flowers, suggesting that the handles might be very appropriately formed by intertwining the stems.

Passing the stall where the productions of M. Langlois were exhibited, we saw this hint very tastefully realized in a set of coffee-cups, covered with a pattern of raised vine-leaves, and having the handles formed by an intertwining of the stems such as commonly occurs in the natural growth. The price, in consequence of the material used, was so low as to place the set within reach of the means of the humblest artisan, and the design, particularly as displayed in the sugar-bowl, rendered it worthy of a place at the table of every man of taste.

We subsequently visited two of the depôts for the sale of these articles, and found that the specimens displayed at the Exposition were fair samples of the perfection, and, what is not less important, of the cheapness to which this process of manufacture has been brought. The depôt in the Rue Richelieu was richer in articles of fine material than that of M. Bovay, No. 39, Rue Montmartre; but the latter seemed to us preferable, both for the cheapness of the articles produced and for the purity of the designs. The best patterns were those derived from the vine; and where the effect was increased, as in the accompanying jug, by giving the natural colour to the raised fruit and leaves, a result was produced highly creditable to the taste and skill of the inventor.

In so plastic a material there is considerable scope for the exercise of fancy, and hence we found in this part of the Exhibition a great variety of grotesques, some of which were in the worst possible taste. We select one of the least offensive, by way of warning, for we happen to know that some of these monstrosities were purchased as models by English manufacturers. To obviate any suspicion of our being supposed to look upon this intention of imitating the French as a confession of inferiority, we may take this opportunity of noticing that the French have copied English designs in pottery without scruple, and to an extent that is almost incredible. Among the grotesques we recognised several designs with which we had already made acquaintance in Staffordshire, and among others Minton's bacchanalian jug, which was far the best in the entire collection of that species of ware exhibited.

There were several copies of Egyptian, Grecian, Etruscan, and Græco-Italian vases in the collection of *Grès de Fantaisie* exhibited; Bovay's collection was particularly rich in these copies of ancient Art, but none of the French manufacturers have at all come near Wedgewood's imitations of Etruscan models. Their copies of some of the vases of Herculaneum and Pompeii were generally failures, while those of Wedgewood have been frequently taken for originals.

Among the new designs we were much struck with one which, though rather quaint and approaching too near to what was anciently called "a concert," had really a very pleasing effect. The upper part of the jug represents a swan seizing a lizard, as the animal tries to escape on the stem of the graceful plant that forms the handle. But the chief beauty of the design arises from the natural way in which the stem-handle seems to grow out of the main body of the jug, thus giving a unity and totality to the design, which nearly approaches perfection. The base also deserves notice from the harmonizing of its proportions with the main design, and from its variation of pattern being still subservient to carrying out the main conception. It would, however, be too small in

proportion to the top of it, were it not so contrived that the swan does not so much take the place of the capital as seen to rest upon it.

The Beauvais ware, or as the French term it, *la poterie de grès*, may be regarded as the transition from earthenware to porcelain: like the former, it is composed of dark and rather cheap materials; like the latter, it is impermeable to water, even when unglazed, and resists the action of fire. It is the most plastic of all the pottery varieties, and is, therefore, easily decorated with raised ornaments. It does not, however, adapt itself to designs, such as that in the accompanying engraving, where sharpness and precision of outline are necessary to perfection; but it is peculiarly suited to rustic work, such as appears in the bowl and jug which we have copied. In the bowl

the gnarled knotting together of the stems at the base has a very rich and pleasing effect, and the design has the merit of being complete in itself, being just contained on the surface of the vessel and no more; there were, however, others in which the patterns, to be fully carried out, required a larger surface than the vessel afforded; and there was a still greater number in which the pattern was too small, and consequently left a vacancy, which either remained a blank or was filled up with some object unconnected with the original design.

M. Ziegler exhibited several copies of ancient and modern vases, and of other articles which combine utility with decoration, in the Beauvais ware. Some of them were exquisitely finished, but we did not see any designs which appeared to be strikingly original. We insert some which have considerable merit. The style of decoration is, however, their principal recommendation, for we have become weary of the everlasting repetition of porcelain vases adorned with frame-work of gilt bronze. To us the Beauvais ware appears far preferable to these anomalous combinations of ware and metal, which too often remind the spectator of gilt gingerbread. There was, however, a vase exhibited with mountings of gilt bronze, which deserved very high commendation. The bronze part was, on the whole, very superior to the porcelain; it was executed by M. Lerolle, and we regret to say that we searched in vain for any independent works of this artist, who manifestly possesses merits that would amply justify his appearing on his own account, and not under the patronage of a manufacturer of porcelain.

The jugs of plain pattern and of very moderate price were numerous. It is highly creditable to the King of the French that he evinced a much greater anxiety for tasteful forms in common ware which might be within the reach of the masses, than for elaborate designs in expensive porcelain, which could only be purchased by the wealthy classes. Indeed, the designs in the coarser kinds of ware exhibited greater artistic skill than any of the porcelains, though of course they could not rival the finer material in delicacy of manipulation. Our English common jugs seem to have never gained artistic attention, and we have, therefore, taken care to give a large variety of the French jugs, in the hope that our manufacturers may be induced to give tasteful articles to the poorer classes of purchasers, since the example of the French potters abundantly proves that this may be done without enhancing the price of the article.

We were sorry to see several specimens of the heavy mannerisms of the style of Louis XV., both in the Beauvais ware and in porcelain. Large single figures combined with a vase or jug, and having no conceivable connexion with the purpose for which such articles are intended, and telling no artistic story, have simply the effect of impertinences. In too many instances the artistic decoration was a mere excrescence, and the figures seemed as if they had cast themselves upon the principal form from sheer want of something else to do. Equally reprehensible were the imitations of Chinese barberisms; our grandmothers used to value these monstrosities, just upon the principle that the men of Kentucky boast of their dogs, on account of their superlative ugliness. We have had often to lament over the reproduction of such absurdities in England, but we must fairly confess that the French imitators of Chinese designs proceeded to an excess of outrage against nature and propriety which could hardly be rivalled in China itself, probably not even in Japan.

We have been induced to dwell at such length on the Beauvais ware, not merely on account of its novelty, but also for the proof which it affords of the value that the excellence of design will confer upon even the coarsest materials. The jug, of which we give an engraving, is made of ware as coarse and common as that which is used in our blacking-bottles, and yet, from the purity of its main design, and the simple elegance of the raised pattern, we should far prefer it to many of the porcelain jugs in the Exposition.

It is one of the specimens which establishes what we have already noticed, the superiority of the French in the management of what are called running patterns: it will be seen, on examination, that the pattern has a beginning, a middle, and an end, and that it exactly covers the surface it was intended to occupy. There is some novelty in the conception of making the raised pattern a pendulous plant, springing from a stem attached to the handle of the jug, and it is suggestive of many pleasing variations of design to compare this with one of a parasitical plant, growing upwards, and trained round props, which we find on a flower-vase of the same material. Should this species of manufacture be introduced into England, as we have no doubt that it will, we should earnestly recommend the adoption of a plan which we find has been tried successfully in France: it is simply to place rods or twigs, in a garden, in such forms as come nearest to those of jugs, vases, and bowls, then to train upon them some of our common parasites, wooodbine, hop, sweet-pea, convolvulus, &c., and take these as models for the designs. This was actually done to procure the model for the accompanying flower-vase.

The Beauvais ware does not easily lend itself to the finer and more delicate patterns of fanciful design. We give a specimen in which such a style was attempted, but, though it was not unsuccessful, it was manifestly a pattern that required a more ductile and pliable material for its full and perfect development. We shall conclude this part of our subject by adding, as the result of very careful inquiry, that the Beauvais ware does not present the same difficulties in the firing as the finer kinds of clay.

The glazed ware of France appeared to us

for the most part deficient in permanency. In many of the articles which we examined it was obvious that the glaze had not so amalgamated with the ware as to adhere to it as a part of the body: there appeared an obvious probability that it would soon scale off. The cause of this appears to have been some imperfection in the firing, a process in which we believe the English manufacturers to be superior to their rivals at the other side of the Channel. On the other hand, the French have devised a process, which, we believe, has not been yet tried in England, but which, if its success be complete, is likely to produce a revolution in the fictile art. This is the electro-plating of earthenware instead of glazing it. Every one knows that the glazing process is most injurious to the health of the workmen, on account of the great quantity of the oxyde of lead employed in the composition, being about sixty per cent. of the entire glazing mixture. Now, if electro-plating succeeds, this insalubrious process will be set aside, and, if we may judge from the specimens exhibited, Art will gain in beauty as much as the workman in health. The new productions in this novel art have received the affected name of galvano-ceramics, according to the modern fashion of baptizing every thing in barbarous Greek. The articles are said to be perfectly impermeable to water, to resist the fire better than the ordinary glazed ware, not to scale off any portion of their metallic covering, and to be very easily kept clean. So far as our limited experiments have enabled us to judge, these qualifications have not been exaggerated. The galvanic plating resisted a very strong heat, and did not tarnish when exposed to vapour, smoke, and gas. But these articles are unfortunately dear; a little vase which unglazed would have cost about two shillings, was charged at five shillings when electro-plated. The cost of the metallic coating, which is of microscopic tenuity, could only be the fraction of a farthing, and we cannot believe that the process by which it is laid on is one that involves much labour or expense. We trust that this new art will be found extensively available, for by removing the necessity for using deleterious glazes it will render a real service to humanity.

The specimens of electro-bronzing on the Beauvais ware may be noticed as a new art, which promises great decorative effect at a very moderate cost. We annex the engraving of a

vase, of which there were several copies in the Exposition, some plain, some with the raised pattern coloured, and some bronzed by the electro-galvanic process. In one the bronzing was confined to the body of the vase, and the raised pattern was coloured, but, from some failure in the manipulation, the design was not completely carried out. The vase itself is very graceful and effective.

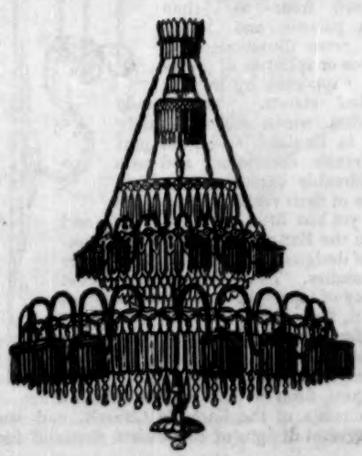
In the ordinary earthenware, such as we usually call delf, the French products are decidedly inferior to the English, and more expensive. The specimens of table ware were not very numerous, but the designs on far the greater part were purely English, and we recognised several of them as old acquaintances. This borrowing of patterns, many of which were not worth the trouble of copying, arises from the high character which English ware bears on the Continent. The author of "Coningsby" justly remarks that hot plates are not to be obtained in the hotels or taverns of France, because the French ware will not bear the fire; English patterns have therefore been adopted, like a fraudulent stamp, to dupe the Germans and others into the purchase of an inferior article. The only novelty worth notice in this department was a cheap dessert service. The plates are moulded on blocks having a slightly-raised pattern, which, of course, is indented in the ware; the glaze subsequently poured over this, by its greater or lesser density, gives very broad effects of light and shade. The best ware of this kind was precisely similar to Wedgewood's green dessert services in material and colour, but was inferior to it in compactness of body and perfection of glaze. Some specimens were exhibited in which purple was substituted for a green glaze. The success of the experiment was incomplete, but we have no doubt that it will ultimately be brought to perfection.

The dinner and tea services in porcelain presented few novelties in form or design. Several of the cups and saucers were exquisitely beautiful, particularly those from the manufactory of Sèvres, and they were all conspicuous for precision of pattern. There were no specimens of that blotchy indecision which belongs to the English "floating blue;" and the general character of decoration belonged to the style of *La Renaissance*, sometimes intermingled with some heavy mannerisms from the style of Louis XV. Several specimens of porcelain enamel were exhibited, but none superior to those which have been produced by Ridgway, Minton, and Copeland. The French patterns were rather preferable in drawing, but their colouring struck us as very glaring, and even harsh. The landscapes wanted that toning down of the strong lights and subduing of contrast in which Ridgway's enamels are so successful: their flower pieces had not the softness of Copeland's; and none of their copies from pictures exhibited that mastery over the blending of colours which is so conspicuous in Minton's productions. The French style of gilding struck us as superior to the English school in the manipulation, and still farther beyond it in design. We saw few specimens of that imitation of dead gold which Ridgway has introduced with excellent effect, but the specimens exhibited were truly admirable. Comparing, however, the articles in the present Exposition with some older specimens of Sèvres china, we should be led to conclude that the art of gilding has retrograded in France, while that of colouring has decidedly advanced. Comparing the colouring of English and French porcelain, we should say that our countrymen are decidely superior in purple, blue, and pink, while the French surpass us in all the rest, but particularly in black, red, and green. On the whole, we do not think that the establishment of the preparation of enamel colours, as a separate branch of business, has tended to the improvement of the porcelain manufacture in France; some of these preparations are very costly, and the temptation to adulterate them is consequently great; fraudulent mixtures cannot be detected without a minute chemical analysis, which requires a larger amount of scientific knowledge than artists can be expected to possess, and it is improbable that dealers in colours could keep so large a stock as to supply the varieties of shades necessary to a painter. Our opinions on this subject were confirmed by the manufacturers with whom we conversed; they declared that in all large establishments a chemist should be kept, as well as an artist; and they stated as an additional reason that valuable results are often attained by merely tentative processes, which might be brought to great perfection if the process were subjected to the investigation and analysis of a careful chemist. We were informed that an instance had occurred of a perfect application of "celestial blues" to hard porcelain, but that the artist had kept no note of the variations in process by which this success was obtained, and hence this class of colours is still confined to tender wares.

Among the useful applications of porcelain, as distinguished from the purely ornamental, we may here notice the substitution of porcelain slabs for marble in chimney-pieces and stove decorations. There were only a few specimens of these porcelain chimney-pieces in the Exposition, and we believe that they were all purchased by Englishmen. It is, indeed, obvious that they are far more suited to our style of domestic architecture than to that of a country where the scarcity of fuel and other circumstances render the use of open grates

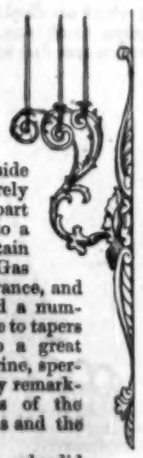
rare and inconvenient. In fact, these articles were regarded as a kind of foreign novelty, and were constantly surrounded by crowds of the curious. And here it is but justice to Mr. Hammersley, our artist, to state that his sketches were often made under circumstances of great difficulty, as he was interrupted almost every moment by the pressure of a moving multitude; but, notwithstanding these disadvantages, his sketches are as accurate as if they had been made in all the quiet and with all the means and appliances of his own studio.

Passing over glass and its various applications for the present, we turn down a gallery, in which are displayed the principal varieties of lamps, candelabra, and chandeliers. Our attention was first arrested by a glass chandelier,



which realized the suggestion we had made in our article on the subject—the beauty that would arise from giving to all suspended illumination the effect of floating or meteoric light. This is accomplished in the specimen we have engraved, by the grouping of the prismatic drops, which are so contrived as to give all the varieties of the iridian hues in every clustre, and completely to hide, or rather disguise, the entire of the suspensory apparatus. A similar effect was sought, and to a considerable extent attained, even when bronze and glass were combined in the same chandelier. In the latter instance, where the main body was bronze and the branches glass, the French artists have exhibited greater boldness in designing the spring of the branch, and greater freedom in the treatment of its design than has hitherto been usual. It is not easy to judge of the effect of a chandelier by a view in the daylight; but in this instance there was no room for doubt that those glass branches clustering round a centre-piece, however heavy, would give it a lightness and lusture sufficient to counteract the stiffness which is the most objectionable feature in all suspended bronzes. In fact, all the more elaborate designs of suspended bronzes in the Exposition appeared to us more cumbrous than gorgeous in their effects; and they looked very heavy when contrasted with some of simple form, which hung in their immediate vicinity. The entire Exposition fully confirms what we have already stated in the ART-UNION, when discussing this subject, that the management of suspended light is a wide and promising field for artistic discovery, which, though not wholly new, has been yet but imperfectly investigated.

It is impossible to cast a glance at the bronze and other branches for tapers designed to be fixed against walls without remembering that we are not yet very far removed from the time when palaces and lordly halls were illuminated by torches or splinters of pitch-pine, supported by iron or wooden stands. These side branches, which are now rarely used in England, still form part of French decoration, and to a considerable extent they retain traces of their rustic origin. Gas is as yet but little used in France, and hence the Exposition presented a number of designs chiefly applicable to tapers or candles. There was also a great variety of tapers in wax, stearine, spermaceti, &c., which were chiefly remarkable for the nice proportions of the adjustment between the wicks and the liamentary materials.



Tapers form a part of the splendid ceremonials of the Catholic Church, and we saw several designs of candelabra destined for ecclesiastical purposes. Many of these were wrought in a florid meretricious style, and might be deemed specimens of the same perverted taste which has turned the interior of La Madeleine into an overgrown toy-shop, and made Notre Dame de Lorette something like a gigantic baby-house of gilt gingerbread. There were, however, several of much purer design, calculated to suggest religious thought; one of these we have engraved, for we think it a happy conception to represent the prayer of

angelic purity ascending to the source of light. The various ecclesiastical ornaments exhibited, not less than the candelabra, seem to show that the taste for exaggerated theatrical display in religious ceremonials is on the decline in France, and that public worship is becoming a matter more of inward feeling than ostentatious show. There were several *bénitiers* and *oratoires* in the Exposition which had nothing to offend a severe Protestant taste; and we may mention as a further proof of this gratifying change that the design which has been selected for the high altar of Notre Dame is one which perfectly harmonizes with the severe Gothic style of that very ancient cathedral. It may also be remarked here that copies of Gothic windows are made in France of burned clay (*terre cuite*), in which the tracery of the most florid Gothic is as sharp and well-defined as in the original stone. This is a matter of some importance to the ecclesiastical architects of England, for the windows of many of our new churches sadly disfigure the general effect of the edifices. The number and variety of the candelabra in the Exposition, and the great multitude of lamps displayed near them, furnished a theme for many indifferent jests to the wits of Paris. One of the best referred to the figure of Cupid in the specimen in the next column, which was said to intimate that, in affairs of love, *le jeu ne vaut pas les chandelles*. The design of this candelabrum is one of great beauty in the details, but is open to some objections in its totality. The plinth is rather too narrow for the massive character of the superincumbent pillar, and the breaks in the column seem to have been introduced more for the sake of variety than for completing a single conception.

A very elaborate system of ornament for a chimney-piece in gilt bronze, combining the frame of a mirror, the receptacle for a clock, and branches for lights, in the style of Louis XIV., attracted much attention, and was greatly admired by the French artists. To us it appeared tawdry and unmeaning in its general effect, though the details were very elaborate, and some of them exquisitely beautiful. In the same material was a system of branches and jets for burning gas, said to have been ordered for the Opera House by her Majesty the Queen of England. It is beautifully executed, but to us the design appeared too massive and heavy for the place which it is destined to occupy.

Most of the lamps displayed were more remarkable for their mechanical contrivances than for their artistic beauty. Nearly all of them were modifications of the Carcel principle, in which the oil is pumped up from the receptacle by the action of a piston, and poured in a continuous stream on the wick, any excess falling over the rim of the reservoir. The modern improvements are designed to substitute hydrostatic or atmospheric pressure for the clock-work by which the pumps in the Carcel lamps were worked, and to produce greater regularity in the flow of oil into the socket. In addition to this M. Joanne has introduced a metallic cone in the centre of the burners, so as to drive the

current of air more forcibly upon the wick, and thus increase the rapidity of the oxygenation which is the cause of flame. It would be out of place to enter at any length into an explanation of the mechanical means by which the raising of the oil is effected; but we may state that the contrivances which met most approbation were that of M. Silvant, who employs atmospheric pressure, and that of M. Joanne, which raises the oil by a piston. The latter has the advantage of superior cheapness, and both may be combined with great elegance of form.

M. Delassant has been the first to combine the apparatus of the Neo-Carcel lamp with the porcelain vase, and thus to render this necessary article an ornamental object for the saloon or drawing-room at all hours. We have copied one of his lamps, which was framed in a beautiful vase of Sèvres porcelain; and we may mention that there was near it another of nearly equal merit, consisting of what seemed to be Chinese porcelain, richly decorated with gilt bronzes. We were anxious to ascertain whether the use of these vases created any difficulty in cleaning and trimming the lamp, but we could not obtain any satisfactory explanation on the subject. It is, however, clear that expensive porcelain vases could not be safely intrusted to servants, if the construction of the lamp were complicated and the cleaning of it involved difficulty. It is to be regretted that no part of the Exhibition was open at night, when the effect of the lamps could be best tested; we had, however, an opportunity of seeing M. Joanne's lamps at his repository, and certainly we never saw any superior to them for purity and steadiness of flame. M. Joanne's lamps were of two kinds, for gas and for oil: in the latter the conical centre to which we have referred produced more perfect combustion than has been attained by any other contrivance with which we are acquainted. He, too, has adopted vases as the models for the form of his bronze lamps, and the accompanying specimens will show that he has been very successful.

The multitude of clocks, watches, and time-pieces exhibited, rendered it difficult to select any as most deserving of attention. But, in fact, nearly all the designs for the ornamental time-pieces were not superior to those which may be seen any day in Regent-street. We select that which struck us as the best, (see engraving at the bottom of previous column), and should direct attention more particularly to the bracket, which we regard as a design capable of a very wide extension to other objects. It is a healthy sign of improvement in taste to find that conceits in the decoration of time-pieces are beginning to be abandoned. A jest in marble and a moral in bronze are to be found too often in our drawing-rooms, and we never yet beheld one which we did not feel to be an impertinence. For the sake of contrast and comparison we shall introduce here another bracket from a different part of the Exposition, which, notwithstanding a slight tendency to mannerism, has very considerable merit, and displays a greater freedom in its outline than the materials of the pattern would *a priori* seem likely to afford. As we are speaking of the subject of suggestive pattern, we may take this opportunity of introducing a smelling-bottle, which exhibits in a small space the best characteristics of the Louis XIV. style, and which has very little of that breaking up of pattern so common in the decorations belonging to that school of Art.

The imitations of bas-relief and of mouldings in *carton-pierre* had few novelties of design to recommend them. Those which may be seen at Bielefeld's establishment in Wellington-street, Strand, are superior to any which came under our notice at the Exposition. We notice the subject here, however, principally for the purpose of noticing that this plastic material lends itself most readily to the production of the more florid designs of the schools of Louis XIV. and Louis XV. A new material of a similar nature, called *chauvre-impermeable*, has been recently introduced, and in this a success has been attained which is truly astonishing. Every little detail has all the finish and sharpness of sculpture. Nearly all the cornices, mouldings, and capitals in the Exposition were formed of this material, which is equally remarkable for its durability and lightness. We

were rather rudely repulsed when we sought some information respecting the nature of the material and the process of the manufacture, but it must be impossible to hide for any long time the mysteries of an art in which more than a hundred operatives are engaged.

Though the Exhibition was rich in jewellery, we saw very few articles of female ornament which exhibited either boldness or originality of design. There was exquisite finish in the parts, but no grand conception to give the parts unity. The favourite style was that of the later days of the old Bourbon court, and it was amusing to find several of the articles bearing the name of a Pompadour or a Maintenon. An immense proportion of the ornaments were gilt or plated, and the decorations merely imitations of stones. In the processes for the imitation of pearls and precious stones the French are decidedly superior to the other nations of Europe; some of their mock pearls could not be distinguished from real by the most practised eye. Their gilt and plated articles were for the most part covered by the electro-galvanic process, which seems to be superior to all the old methods of gilding and plating. We were informed that some experiments have been made which seem to show the possibility of covering beams of timber with metallic coating at a cheap rate, a process which would greatly increase their durability, and also render them all but perfectly incombustible. This process, which is said to be a substitute for kyanizing, is, according to the information we received, as yet too imperfect for any specimens of it to be

exhibited, and it is considered desirable to keep everything connected with it a profound secret.

The bracelet, of which we have given an engraving, appeared to us the most meritorious production of the kind in the Exposition. There were some bracelets of cameos, but not remarkable for the execution of the cameos or the artistic skill of the setting.

All the judges of the Exposition, and all the organs of public opinion in Paris, were unanimous in the declaration that the progress of the decorative arts, in their application to articles of domestic use, was most signally marked in cabinet-making. The accompanying cabinet for the centre of saloon was claimed as a complete novelty in all its parts, and it certainly was one of the most graceful and novel articles displayed. Previous to the Revolution rich furniture could only be purchased by the nobility, or some wealthy farmers-general; for a comfortable middle-class could scarcely be said to exist in France. The spacious and lofty rooms of the chateaux and hotels required furniture of a massive character to suit the enormously wide and lofty rooms belonging to the ancient noblesse. We have always felt that the decorative style of the age of Louis XIV. was in this respect very defective, and that both the ornaments and furniture of Versailles, for instance, have a feebleness and pettiness, when taken in their relation with the vast apartments where they are displayed, and that the mannerisms of the Louis XV. school, however objectionable in other respects, acquire appropriateness when viewed in connexion with the old palatial residences. The accompanying bedstead, which in some of its essential features belongs to the Louis XV. school, is obviously fitted to occupy an alcove in a large state apartment, where its rich decoration would harmonize with the style of the walls and panels, while, if placed in a room where it would constitute the principal object, its effect would be very heavy and almost painful. The French people, at least a large portion of the middle-classes, seem to be of opinion that bedsteads of carved wood are too heavy for the apartments of moderate size which belong to moderate fortunes; and they are fast adopting the use of iron and brass bedsteads, which have many obvious advantages that need not be further described to Continental travellers. The iron bedsteads in the Exposition were for the most part exceedingly plain and simple in their forms, but were so constructed as to admit the utmost possible variety of ornament in cornice and drapery. The varieties of cornice exhibited were very numerous, the materials chiefly used in their construction being either *carton-pierre* or *chauvre-impermeable*. The latter material, as we have already mentioned, being remarkable both for its lightness and for the sharpness of outline which it can receive, seems to us peculiarly suitable to the decoration of light bedsteads, and it can be procured, richly carved, at a far lower price than plain timber. (An example is given at the top of the column.) In its application to bed-furniture, it is, of course, very important to ascertain whether it is liable to crack and afford shelter to insects in its fissures. So far as our inquiries have gone, it appears to be ascertained that its grain is as close as that of marble, that its parts fit together as closely as cut stone or metal joints, and consequently that it is superior to wood itself in its applicability to the furniture of a bedroom.

The French have always been distinguished for excellence of taste in the arrangement of drapery, and bedrooms are reckoned among the show apartments in most houses of the upper classes. Indeed, at both the Trianons the furniture of the bedchambers is more likely to attract the attention and excite the admiration of visitors than the furniture of the other apartments. To some extent this exposure of the bedchamber is not very consistent with our English notions of delicacy and privacy; but even at this side of the Channel greater attention is paid to the tasteful arrangement of the sleeping apartments than was usual some years ago. We insert an engraving of a French bedstead and canopy, which struck us as equally remarkable for its simplicity and its beauty. We recommend the pattern to our manufacturers of brass and iron bedsteads, most of whose articles, however laudable on the score of cleanliness and comfort, have hitherto displayed a lamentable deficiency in elegance and taste. The cornice might easily be obtained in Bielefeld's *carton-pierre*, which we believe could be most extensively and cheaply applied to the decoration of works in metal.

Since the introduction of the *carton-pierre* and *chauvre-impermeable*, the French have made great advances in the fabrication of cornices: and this, united to their tasteful draperies, has rendered their saloons more palatial in their appearance than the drawing-rooms of persons in corresponding stations in England. (An elegant engraving is given in the next column.)

Wood is too rigid, and plaster of Paris every way too objectionable to be employed in cor-

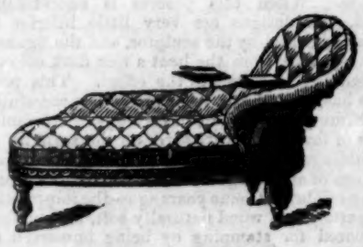
nicial decorations. We should gladly see the plastic substances we have mentioned more ex-

tensively brought into use, for they are susceptible of as much accuracy of form as any casting in metal, and they are so light as to be easily put up or taken down, whenever circumstances require their removal. In connexion with this subject we may notice an invention of screws for beds and other furniture, patented to M. Klein, of the Faubourg St. Antoine, which secure all joints and fastenings from those interstices in which insects harbour, and which afford remarkable facilities for taking asunder or putting together the various articles to which they are applied.

In 1834 most of the articles of domestic furniture sent to the Exposition by the cabinet-makers of Paris, who engross almost exclusively the trade of France, were bad imitations of the worst English style. We have already mentioned that the Revolution brought in its train a complete change in the domestic furniture of France, compelling the artisans to abandon those massive designs for articles on a large scale, and to seek forms more in harmony with apartments of moderate size. Comfort, a word, by the way, which has now become thoroughly naturalized in the French language, began to be preferred to luxury. Under these circumstances it was natural that the French artisans should have recourse to Great Britain for the forms which their altered circumstances required, as in our country commercial and manufacturing enterprise had created a number of moderate fortunes, such as did not exist in France until after the Revolution, and the consequent wars had run their course. The first essays of imitation were miserably bad; but the French artisans have now struck out a new style, in which they have combined the old forms of decoration with the English shapes of comfort. The chair which we give, as an example of this new style, is also a specimen of an art which has made great advances in France within the last few years, that is the art of sculpturing wood by mechanical processes. The principle of one of those processes, and that which we believe to be the most successful, may be described in general terms as a combination of the lathe and the pantagraph: the latter principle in its application enabling the artisan to enlarge or diminish the size of his copy of the pattern at his discretion.

The arm-chairs (*fauteuils*) are generally more

perfectly modelled in the style of Louis XIV. than the other articles of furniture, and they are upholstered more richly than has been the fashion for the last century. Satin, figured velvet, and embossed leather, were the favourite materials for covering the soft backs and cushions; but it appeared to us that the embossed leather did not harmonize with the general effect. All the square-backed chairs had an awkward stiffness and rigidity in their appearance, which was rendered more striking by the flowing curvilinear outline of such *fauteuils* as that which we have copied. In couches there were several patterns which



might be given as examples of simple elegance; we have engraved the design of one which was particularly pleasing in its effect. But there were some other overlaid with such a profusion of inconsistent ornaments, that they resembled rather a chance assemblage of specimens than a union of harmonious parts in a single design. We noticed but one specimen of the recumbent chair; its mechanism was very perfect and easily managed. The ornaments sculptured upon it were executed by Grunpré's mechanical process, and were among

the finest specimens of wood-carving in the Exposition. It may, however, be desirable to see the difference of effect between the mechanical carving and that produced by the ordinary process; and for this purpose we shall insert the framework of a *fauteuil*, which was

described as entirely the work of the hand, without any assistance from the mechanical processes. We did not think the hand-carving at all superior to that produced by mechanical means, while the latter had the obvious advantage of being attainable at less cost. It is said that some upholsterers have tried the experiment of getting chairs in plain wooden frames, and encrusting them with ornaments in *papier-mâché* and the *chawre-impermeable*; but we saw no specimens in the Exposition.

Lacquered and varnished chairs, such as those produced by Jennings and Bethidge, of Birmingham and Chelsea, were exhibited in great variety, but were on the whole inferior to those of English construction, both in design and execution. There were some imitations of the shell-inlaying, for which Jennings and Bethidge are celebrated; but the French articles were decidedly inferior to the English originals, and, indeed, seemed little better than a caricature of them.

Great praise, however, is merited by an invalid chair, exquisite in design, regarded

merely in an artistic point of view, and having unrivalled means and appliances for the comfort and convenience of those for whose use it was designed. The mechanism was particularly ingenious; but the description of it does not come within the scope of this article. But in this and in other departments of the Exhibition we saw abundant proof that the French are rapidly advancing in ingenuity of contrivance, though on the whole their smith-work is still below the excellence of the Warwickshire manufactures.

Cabinets and chiffoniers exhibited less varie-

ties in form than we were prepared to expect; but they were nearly all remarkable for their elaborate decoration. That which we have copied had a peculiarly rich effect, and the carved figures at the corners were worthy of the *atelier* of a professed sculptor. The fashion of cabinets and other ornaments for the centre of rooms, in preference to those which have their backs to the walls, seems to be on the increase in France. The cause probably is, that a taste has sprung up for decorating the walls themselves, instead of hiding them behind large pieces of furniture. Some of those cen-

tral ornaments possess very considerable merit, but, as in the example before us, they are only applicable to spacious and lofty rooms.

It may be taken as a gratifying proof of the increase of religious feeling in France that the *Prie-Dieus* were very numerous, and decorated in a style appropriate to their devotional purposes. In fact the whole style of the furniture, upholstery, and house-decoration was suggestive of reminiscences connected with the ante-revolutionary period of French history, and the sight would assuredly have broken the heart of a Girondist or a Jacobin. This change of fashion has been angrily noticed by several of the journals, and a cry raised that the tendency of the public mind is retrograde; but were we to pronounce an opinion, we should say that public taste in France, like the popular philosophy, is decidedly eclectic, and shows no decided preference for any particular school.

One great cause of the former inferiority of the French artisans in cabinet-making was a perverse determination on the part of the French artisans to use native timber. Now, the wood of temperate climates has neither the close grain, the luxuriant fibre, nor the rich tints that belong to the wood of tropical climes; oak and walnut alone take warm colouring with age, but both are liable to be injured by the worm; and walnut, which seems to be the favourite wood with many French manufacturers, will not take such sharp outlines as mahogany, rosewood, or ebony.

Veneering does not appear to have been brought to any great perfection in France; the specimens which we saw at the Exposition were decidedly coarser in finish and less firm in adhesion than those which are displayed in the best of our furniture warehouses; and when we visited the workshops in the Faubourg St. Antoine, which is the great seat of the cabinet-manufactures of France, we found that the French workmen were generally inferior to the English in the manipulation of veneers, and in fixing the joints of furniture, but superior, we think, in the management of the lathe and of chasing tools.

The process of mechanical sculpture, invented by M. Grunprè, was reported by the jury of 1839 as one of the greatest novelties in that Exposition; a new form of sculpturing wood has been introduced this year by M. Vood, of which we have, indeed, seen some specimens in England, but none equal to those displayed in Paris. The pattern, which the wood is intended to exhibit in high relief, is cast in an iron mould, and the iron, properly heated, is applid to the wood so as to burn out the design. Several repeated applications are necessary before the encaustic pattern is perfectly complete, and, as great care must be taken to secure the proper justification of the mould to the pattern, and as much depends on keeping the mould at a certain regulated temperature, the manipulation of this new art requires much dexterity, attention, and experience. When this process is successfully used, the designs are very little inferior to those executed by the sculptor, and the figures, besides, take from the heat a rich dark colour, which greatly enhances the effect. This process has, we believe, been applied successfully to forming the capitals of columns, the mountings of furniture, and nearly all the varieties of mouldings and cornices. We saw no specimens of an analogous art, for which the French were celebrated some years ago—the impressing of patterns on wood naturally soft, and further prepared for stamping by being immersed in boiling water. We have seen, however, in Paris some specimens of relief in wood, obtained by a screw-press according to this process, which possessed very high merit. Some iron chairs were displayed having moveable seats, so that cushions could be put in when they were used in the house, or perforated seats if they were placed in the garden. Some of these iron chairs, manufactured by M. Gandillot, were remarkable for their lightness and elegance, and it was only by very close examination that they could be discovered to be composed of so clumsy and cumbrous a material. Still it is improbable that iron furniture will ever be introduced into our drawing-rooms, though we think it will be found very applicable to public offices, and we know that it is very extensively used in the various establishments connected with the Government, and also with the municipality of Paris.

Neither in public nor in private did we see any tables which could compete with those in ordinary use in England, with the exception of billiard-tables, of which the Exposition contained several magnificent specimens. That of which we insert an engraving attracted crowds

of admirers, so that the artist had very considerable difficulty in rendering justice to its merits. There was another billiard-table in the Exposition, of which the original design was fully equal to that which we have engraved, but which was subsequently spoiled by an attempt to render the article equally applicable as a dining-table and sideboard. This economy of furniture has never yet proved of the slightest practical advantage; it is like the attempt to combine two professions, which generally ends in rendering a man unfit for either.

The number of pianos in the Exposition should be counted by the hundred; the love of this instrument must amount to a passion in France, if consumers can be found for the productions of all the manufacturers whose names swell the catalogue. We saw in a list of music advertised in this gallery of the Exposition, "The Quadrille of the Broken Chairs," by Musard; and we could not help thinking that some professor ought to write a "Waltz of Broken Pianos," with music which could never be played without causing the fracture of some eighteen or twenty chords, so as to keep piano-makers in partial employment. The universal use of the piano was further evidenced by the various contrivances displayed to make the instrument occupy as little room as possible. Instead of grand pianos extending themselves into trains longer than that displayed by the mad Duchess of Newcastle at the court of Charles II., we had instruments shrunk to the dimensions of a chiffonier, with certificates to prove, and, unfortunately for us, auricular evidence to demonstrate, that loudness of tone was not lessened by the diminution of size. Some pianos were constructed so as to produce the sound of the organ, but in too many instances these organized pianos seemed to us more like a disorganized bagpipes. Others there were which menaced us with all the varied music of a military band; and others, on the contrary, claiming favour for the delicacy of tone with which they accompanied the human voice. The latter did not fulfil their promise; wedged in the crowd, we were compelled to listen to one of the experiments; the vocalist had a sweet clear voice, but it was drowned by a perfect tempest of accompanying harmonies, which would have overwhelmed the shouts of Stentor.

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In most of the articles of furniture displayed the style of Louis XV. clearly predominated; large figures and heavy mouldings were the most obvious faults, because these decorative parts were frequently disproportionately large in relation to the main design. But, though there were several of these extravagant mannerisms, there were some examples of a subdued Pompadour style, particularly a mirror,

which mingled some of the lighter parts of *La Renaissance* with the heavier mouldings of Louis XV. To this style is usually conjoined what is really a very different form of decoration; that is, incrustations in tortoise-shell, mother-of-pearl, coral, and metal plates. We have already noticed the union of these *lamina* of shell with varnish, and stated our opinion of the inferiority of the French in this form of decoration to the great Birmingham house; but we are bound to say that some specimens of incrustation, in which coral, shell, and gold were combined, exhibited by Messrs. Bœuf and Garaudy, were among the most brilliant forms of incrusted ornament we have ever seen. The effect of the coral was very novel and striking.

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But, though the manufacture of artificial flowers does not properly come within the range of artistic decoration, it must be confessed that the variety and beauty of those which were displayed in the Exposition merited the warm approbation which they received from all the spectators. In one artistic particular the French artists in this humble path of decoration exhibit a skill and taste which admit a very wide range of application. The grouping of the flowers was so managed as to give a most graceful blending of colour, united to an admirable harmonizing of the forms. Taste in this respect seems to be universal in France, for the *bouquets* sold in the ordinary markets, even of the country towns, are disposed with great picturesque effect, so that frequently a group of the ordinary flowers of the field is more pleasing, even to the inexperienced eye, than the expensive products of the hothouse or the conservatory. The flowers and fruits in wax and similar compositions surpassed any that we had ever seen before, both in perfect fidelity to nature and in tasteful arrangement; but those worked in feathers scarcely equalled the productions of the nuns in Brazil and other parts of South America; the excellence of these latter may, however, be in some degree attributed to the superior plumage of the tropical birds, and the immense variety of hues which nature places at the disposal of the conventual sisterhoods. In other works of the *plumassier* the Exposition contained little that claims attention; we may, however, mention a headdress of ostrich feathers, which exhibited much lightness and grace. In the artificial flowers connected with millinery there was much to admire; some of the wreaths approached in their combinations the higher branches of Art, and we particularly noticed that those which were formed from the models of common and light flowers were more successful in their effects than those which imitated rare exotics. It may, indeed, be a question whether exotics under any circumstances should be taken as models for decoration, as they can never harmonize with the natural products of our climate.

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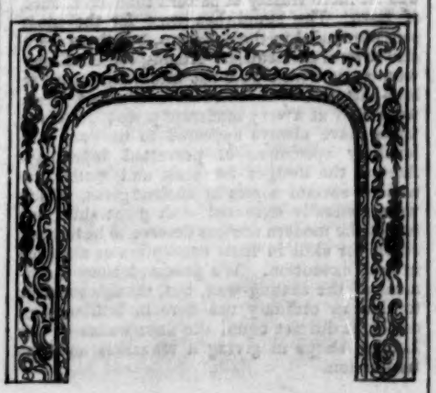

merely in an artistic point of view, and having unrivalled means and appliances for the comfort and convenience of those for whose use it was designed. The mechanism was particularly ingenious; but the description of it does not come within the scope of this article. But in this and in other departments of the Exhibition we saw abundant proof that the French are rapidly advancing in ingenuity of contrivance, though on the whole their smith-work is still below the excellence of the Warwickshire manufactures.

Cabinets and chiffoniers exhibited less varie-

ties in form than we were prepared to expect; but they were nearly all remarkable for their elaborate decoration. That which we have copied had a peculiarly rich effect, and the carved figures at the corners were worthy of the *atelier* of a professed sculptor. The fashion of cabinets and other ornaments for the centre of rooms, in preference to those which have their backs to the walls, seems to be on the increase in France. The cause probably is, that a taste has sprung up for decorating the walls themselves, instead of hiding them behind large pieces of furniture. Some of those cen-

tral ornaments possess very considerable merit, but, as in the example before us, they are only applicable to spacious and lofty rooms.

It may be taken as a gratifying proof of the increase of religious feeling in France that the *Prie-Dieus* were very numerous, and decorated in a style appropriate to their devotional purposes. In fact the whole style of the furniture, upholstery, and house-decoration was suggestive of reminiscences connected with the ante-revolutionary period of French history, and the sight would assuredly have broken the heart of a Girondist or a Jacobin. This change of fashion has been angrily noticed by several of the journals, and a cry raised that the tendency of the public mind is retrograde; but were we to pronounce an opinion, we should say that public taste in France, like the popular philosophy, is decidedly eclectic, and shows no decided preference for any particular school.

One great cause of the former inferiority of the French artisans in cabinet-making was a perverse determination on the part of the French artisans to use native timber. Now, the wood of temperate climates has neither the close grain, the luxuriant fibre, nor the rich tints that belong to the wood of tropical climes; oak and walnut alone take warm colouring with age, but both are liable to be injured by the worm; and walnut, which seems to be the favourite wood with many French manufacturers, will not take such sharp outlines as mahogany, rosewood, or ebony.

Veneering does not appear to have been brought to any great perfection in France; the specimens which we saw at the Exposition were decidedly coarser in finish and less firm in adhesion than those which are displayed in the best of our furniture warehouses; and when we visited the workshops in the Faubourg St. Antoine, which is the great seat of the cabinet-manufactures of France, we found that the French workmen were generally inferior to the English in the manipulation of veneers, and in fixing the joints of furniture, but superior, we think, in the management of the lathe and of chasing tools.

The process of mechanical sculpture, invented by M. Grunprè, was reported by the jury of 1839 as one of the greatest novelties in that Exposition; a new form of sculpturing wood has been introduced this year by M. Vood, of which we have, indeed, seen some specimens in England, but none equal to those displayed in Paris. The pattern, which the wood is intended to exhibit in high relief, is cast in an iron mould, and the iron, properly heated, is applid to the wood so as to burn out the design. Several repeated applications are necessary before the encaustic pattern is perfectly complete, and, as great care must be taken to secure the proper justification of the mould to the pattern, and as much depends on keeping the mould at a certain regulated temperature, the manipulation of this new art requires much dexterity, attention, and experience. When this process is successfully used, the designs are very little inferior to those executed by the sculptor, and the figures, besides, take from the heat a rich dark colour, which greatly enhances the effect. This process has, we believe, been applied successfully to forming the capitals of columns, the mountings of furniture, and nearly all the varieties of mouldings and cornices. We saw no specimens of an analogous art, for which the French were celebrated some years ago—the impressing of patterns on wood naturally soft, and further prepared for stamping by being immersed in boiling water. We have seen, however, in Paris some specimens of relief in wood, obtained by a screw-press according to this process, which possessed very high merit. Some iron chairs were displayed having moveable seats, so that cushions could be put in when they were used in the house, or perforated seats if they were placed in the garden. Some of these iron chairs, manufactured by M. Gandillot, were remarkable for their lightness and elegance, and it was only by very close examination that they could be discovered to be composed of so clumsy and cumbrous a material. Still it is improbable that iron furniture will ever be introduced into our drawing-rooms, though we think it will be found very applicable to public offices, and we know that it is very extensively used in the various establishments connected with the Government, and also with the municipality of Paris.

Neither in public nor in private did we see any tables which could compete with those in ordinary use in England, with the exception of billiard-tables, of which the Exposition contained several magnificent specimens. That of which we insert an engraving attracted crowds

of admirers, so that the artist had very considerable difficulty in rendering justice to its merits. There was another billiard-table in the Exposition, of which the original design was fully equal to that which we have engraved, but which was subsequently spoiled by an attempt to render the article equally applicable as a dining-table and sideboard. This economy of furniture has never yet proved of the slightest practical advantage; it is like the attempt to combine two professions, which generally ends in rendering a man unfit for either.

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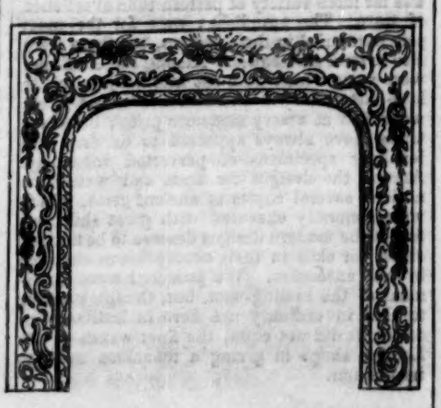


In most of the *papéterie de luxe* sold in our shops there is a superabundance of gilding, and this was to some extent the case in France. Fortunately the article, trifling as it may be deemed, attracted the notice of some eminent artists, and they produced a few designs, which soon spread a taste for improvement. That which we have copied at the head of this column is executed in blue and silver: we have also seen it successfully tried with green and gold; but the specimens produced in crimson and gold were decided failures. We mention this circumstance to direct attention to a branch of the art of design, which we think has not yet received all the attention it merits, and that is the relations of pattern to colour. In this respect our calico-printers sometimes play sad havoc with our patience. We have seen very beautiful designs in dark and subdued colours, turned into startling monsters when exhibited in bright red or azure blue. The besetting sin of the designers for these luxurious papers is a tendency to occupy so much of the page with ornament as to divert attention from the primary object for which letter-paper is designed. Of course our remarks are intended to have a wider range than the immediate subject before us; but it is in these minor articles that the force of principles is most apparent, just as chemical laws are best evolved by experimenting on small portions of substances. Now, without at all exhibiting ourselves as rigid utilitarians, we hold it to be true that every ornament which leads to the neglect or overlooking of the purport of the article to which it is appended is to be regarded as an excrescence. There is an old proverb in France, originally applied to specimens of the style of Louis XV., that "the shirt is frequently worn for the sake of the ruffles:" it is not less absurd to make the principal article subsidiary to the ornament, as is frequently done in some extravagances of the style of Louis XV.

We have dwelt at more length on these minor articles than we originally intended; but the patterns we have copied are wider in their application than the articles on which they appear. Before quitting the subject we may mention that in other articles of ornamental stationery, such as wafers, pens, standishes, sealing-wax, envelopes, &c., there was far more variety of pattern than excellence of taste. The standishes were for the most part pyramidal in their designs, but there were also several grotesques. Among the envelopes were some which were cut into very exquisite lace-patterns, by mechanical means, and which were sold at a very moderate price; but these trifles have always appeared to us very melancholy specimens of perverted ingenuity. Among the designs for seals and wafers we noticed several copies of ancient gems, which were generally executed with great skill, but few of the modern designs deserve to be noticed either for skill in their conception or elegance in their execution. We procured some specimens of the sealing-wax, but, though superior to that in ordinary use here in brilliancy of colour, it did not equal the finer waxes of the London shops in giving a tenacious and fine impression.

We have given a third representation of these paper borders, because it is in the style of what appear to be the most fashionable picture-frames in the Exposition, and because it is in its artistic effects superior to most of the frames exhibited. There were some patterns in which one was as likely to say "the frame with the picture," as readily as "the picture with the frame," just as the Greek Epigrammatist tells us of an individual respecting whom it was usual to say, "the nose with the man," and not "the man with the nose." Both in England and France picture-frame makers seem to have set themselves perversely to work for the purpose of devising frames which should be beautiful things in themselves, irrespective of the objects which they enclose; and hence it is quite common to hear persons exclaim, "What a beautiful frame!" without bestowing the slightest notice on the picture.

To return, however, to the subject of paper, an article in the manufacture of which the French have not been hitherto very successful: the numerous specimens exhibited in many different galleries might be quoted as proof that great attention is beginning to be devoted to the subject. We took some pains to ascertain the qualities of the different writing papers, and found none, not even the most expensive, which came up to the ordinary qualities of English manufacture, and certainly none that could rival the best letter papers of the London shops. In the paper for copperplate or lithographic impressions, either the French manufacturers or the French printers appear to be superior to their English brethren. Certainly we have never seen any lithographs in any country equal to those of M. Auguste Bry. We were particularly struck with the plates representing 'A Tartar Family,' 'A Tartar School,' 'The Cathedral of the Kremlin,' studies of trees, and, above all, by a superb portrait of the Marquis de Casa Riera, which we regard as an unequalled specimen of the lithographic art.

In the specimens of ordinary printing nothing struck us as worthy of special remark, in fact, we saw much better in the stock of several publishers. The designs for bookbinding were, for the most part, contemptible; but there was one of superior merit to which a melancholy interest was attached. It was a history of the career of Napoleon, bound in black morocco, and adorned with alto-relievos in ivory, representing some of the most memorable facts in the Emperor's reign. It was executed for the late Duke of Orleans, and was, to some extent, his own design; and it forms part of the valuable and select library which he bequeathed to his infant son, the Count of Paris. It was wise policy in the Orleans family to appeal to the French reminiscences of Napoleon, and represent themselves as heirs of the empire rather than the monarchy. All Bourbon recollections are dead and buried in France: even the rising youth of the Faubourg St. Germain have far more sympathies with Napoleon and his generals than with Henri Quatre and his faithful Paladins.

There was a gallery in the Exposition which we should gladly pass over, if it had not been one that excited much attention, and was even noisier than that in which the pianos were displayed. From the moment of opening the Exposition, even to its close, this gallery resounded with merry jests, jocund laughs, and the playful remonstrances designed to encourage the continuance of badinage. To any one who has visited the Exposition we need not say that this was the gallery of corsets, and several other inventions for the improvement of the human shape. With its mysteries we presume not to meddle; but we cannot avoid mentioning a card thrust into our hands, informing us that a revolution in corsets had been effected by the introduction of the Polka; and that ladies and gentlemen should, therefore, provide themselves with a totally new apparatus of figure-formation, such as was displayed on lay figures in a glass case near the *modiste* who circulated these advertisements. The "Corsair," which is the "Puck" of Paris, in reviewing this part of the Exposition, sums up the account with a sentence which we shall quote, without venturing on a translation:—"Récemment, la Chambre des Députés, que je respecte beaucoup, a fait une loi contre la falsification des vins, et elle n'a pas l'idée d'en faire une contre le falsification de ce sexe enchanteur. Au contraire, on l'expose, on l'encourage, on la décoré cette affreuse falsification. ..... O legislateurs, que vous êtes injustes!"

The clever vaudeville of "Dagobert," one of the best occasional pieces that has ever been produced, is a skit at the Exposition, and does not miss so favourable an opportunity for a smart hit as the Gallery of Corsets affords. The heroine touches it in the following stave:—

"Pour les femmes, quel malheur
Qu'à Paris tant de mystères;
De la parure et du cœur
Dévoilent tous les mystères.
On en dit tant, tant, tant, tant
Sur tous nos petits mystères
Qu'on ne sait plus à présent
Comment tromper un amant."

Which may be thus loosely rendered:—

Oh! what a misfortune for ladies,
That Paris reveals all its mystery,
And at the grand show it a trade is
To show up our shapes and their history.
So many are these revelations,
So great are the tricks they discover,
That we have lost all expectations
Of imposing again on a lover.

Turning from this perilous gallery to that appropriated to mechanical inventions, and particularly to steam-machinery, it is impossible to deny that the French have reason to boast of their recent progress in iron mill-work. Politics have ever been carefully excluded from this journal, and we trust that we shall not be deemed to tread on forbidden ground when we say that the view of this part of the Exposition would have convinced the most obstinate of the wisdom of repealing those laws which prohibited the exportation of machinery. When continental nations were unable to export our machines, they succeeded in what was infinitely worse for us—the exportation of our machine-makers, and thus obtained a valuable body of instructors, who would never have gone abroad if the laws prohibiting the exportation of machinery, and consequently its manufacture to meet the demand of foreign markets, had not deprived them of employment at home. But, notwithstanding this conclusive proof that commercial restrictions fail to do the good for which they are designed, and produce evils which their originators never anticipated, there is a large party in France clamorous for the prohibition of the import of machinery. The necessary result of such a measure would be an immediate check to the progress of improvement,

and a sacrifice of the national interests to those bigoted monopolists, the iron-masters of France.

Electrical machinery has engaged much attention of late on the Continent, and there is a very general belief among men of science that we are on the eve of some great discovery, which may lead to the substitution of that subtle fluid for steam as a motive power. An electro-motive apparatus was exhibited by the brothers Breton, far superior to that which the Rev. Mr. M'Gawley brought forward at the meeting of the British Association in Dublin, A.D. 1835. It was set in motion by a single electrical current, and a slight change of the index reversed the motion of the wheel in an instant. The model was on too limited a scale to allow of our forming any estimate of its applicability to practical purposes.

The fire-engines constructed by M. Debassoux were recommended to notice by the facility with which they can be repaired in case of accident, and the ease with which they can be worked. There were several other ingenious contrivances exhibited by this eminent engineer, and amongst others an apparatus for procuring a constant supply of hot water in any part of a house, either to heat the rooms or furnish baths, by the single agency of the kitchen-fire.

Several ingenious contrivances for the purification of oil were exhibited, and in connexion with them we may notice a porcelain Neo-Carcel lamp, the interior apparatus of which we had an opportunity of inspecting. We believe that the design was originally for a lamp in which portable gas might be consumed, but there were some mechanical difficulties which prevented it from receiving this application. In the place of gas, the inventor proposed to use an oil of extreme liquidity and purity, specimens of which were exhibited. It may, perhaps, be doubted whether the ornamenting of the saloon or drawing-room may not have occupied too much attention, for in every part of the Exposition we were constantly drawn away from the special object of our notice, by finding it associated with some or other of the decorations belonging to the reception-rooms of a mansion.

As an instance of this we might specify a very ingenious set of curtain-rods and curtain-rings, which we should have overlooked had not we been reminded that they formed the skeleton of a beautiful system of hangings, which had attracted our notice in another part of the Exposition. The cornice in this system was in the simpler style of *La Renaissance*, mingled with which we observed some faint traces of the Byzantine school. It was obvious that all the persons engaged in preparing this system of hangings had worked together in concert, and that each had the whole design present to his view while preparing the separate part intrusted to his charge.

Among the minor branches of industry may be noticed the manufacture of artificial eyes; in which the French artists have attained great perfection. It was not, however, easy to appreciate the merits of these articles as seen in the Exposition; but in the museum attached to the Jardin des Plantes the vigour given to the artificial eyes frequently misleads the spectator, and almost produces a belief that the animals have life. There were also exhibited several copies of anatomical preparations executed in various substances, which were, we believe, designed as models to be used by lecturers on physiology and comparative anatomy. We were particulary struck with the model of a horse after the integuments had been removed, which was not less valuable as a study to the artist than to the veterinary pupil. One reason of the great excellence of the French designers appears to be the attention that they bestow on anatomy and physiology previous to beginning to draw from the living model. In some examples, and particularly in the candelabrum which we copy, the artists appear to have made their anatomical knowledge a little too apparent, and this, combined with the painful feeling which is always more or less associated with every caryated design, produced sensations of constraint, and almost of pain, which it required all the other excellencies of the pattern to overcome. On the other hand, in a beautiful table of the style of Louis XV., the anatomical knowledge of the artist being kept subservient to the main design, was a great means of his success. It enabled him to triumph over the mannerisms of the style which he had adopted, and to conquer the difficulties that always arise from the use of pyramidal forms in columns of support. The pyramid is, indeed, inconsistent in its essence with the character of giving support: it is the natural form taken by any heap or pile, and hence its shape always suggests the idea of termination in a point. The Greeks and the Egyptians almost invariably adopted the plain column when it was necessary to support a flat table by a single pillar, and generally combined it with the tripod.

We must pass lightly over the progress made by the French in the various branches of machinery connected with the iron trade; there were several steam-engines and locomotives in the large Saloon of Machinery; some ingenious combinations of the crane and balance; an abundance of spinning machinery, not of the first order; several varieties of apparatus connected with the refining of sugar; but nothing which could properly be called a new invention, except, perhaps, a hand-mill designed for the use of the French army in Africa, and a machine for hammering iron by means of steam. The weighing machines exhibited by M. Lagnier struck us as remarkable for their delicacy and precision, both of which qualities were severely tested. There was a deficiency in this Exposition which we think ought to have been remedied: there was no contrivance by which motion could be given to the machinery so as to render its purposes immediately apparent to the spectators. It would have been a vast improvement if steam power had been provided to move a rolling beam in the Saloon of Machinery, and allow each engine to be tried experimentally in the presence of the spectators. We were informed that if this had been done the new machine for sculpturing, or rather copying sculpture, would have been exhibited, as several of its results were in various parts of the Exposition.

It is impossible to quit this subject without noticing the anxious desire manifested by Frenchmen of every class to rival the English both in the fabrication and the application of machinery. It finds vent in the most popular pieces produced on the French stage, in the songs sung in the streets, in the saloons of the most thoughtless votaries of fashion not less than in the offices of Ministers and the Chambers of the Legislature. But at the same time the economic questions connected with the employment of machinery are discussed in a spirit of narrow-minded selfishness, and with such utter ignorance of the laws which regulate price, demand, and supply, that one would almost suppose political economy to be a science unknown in France.

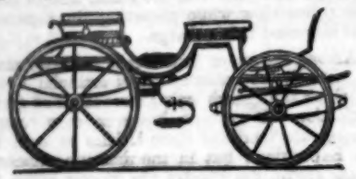
Another object more closely connected with the decorative art, though far less important in a national point of view, in which the French seem anxious to retrieve their recognised inferiority to England, is in the construction of coaches and carriages. There is probably no object which more strongly impresses upon the mind of an Englishman who first visits France, that a few hours of steam navigation have sufficed to place him in a foreign land, than the sight of a French diligence. It appears to him like an imtation of Noah's ark mounted upon wheels. Those who have not seen it must imagine one of our clumsiest stage coaches with a lumbering chariot fixed to it in front, and three quarters of an omnibus appended to the rear; the chariot being surmounted by one of the old London cabs, which have long since disappeared. To this aboriginal vehicle, seven or eight horses, as rough as if they had just

come from grass, are fastened by rope harness, and the team is then placed under the management of a clown in a smock-frock, who looks more like an Arab of the Desert than the animal product of a civilized country. There are, however, two circumstances connected with the management of a French diligence not unworthy the notice of the proprietors of our public conveyances. The motion of a French diligence can be at once retarded when going down hill, or under any other circumstances, by means of breaks worked by a system of leverage, which is completely under the control of the *conducteur*. This is a plan far superior to the use of the drag, which is always inconvenient and sometimes dangerous. In travelling by diligences from Dieppe or Havre to Paris, the mode in which passengers are transferred to the railway deserves notice. The body of the diligence, passengers, luggage, and all remaining in their places, is lifted clean off its carriage by a crane, and then transferred to a truck, in which it is secured by contrivances equally safe and simple. On reaching the terminus in Paris, the vehicle is again placed upon a carriage, and drawn by horses to the centre of Paris. All the inconveniences arising from the transfer of luggage are thus avoided, and strangers, instead of being set down at a terminus in a remote suburb, are conveyed at once to their destination in the metropolis.

The progress of invention in France has seized hold of the carriage, harness, and saddlery department with a vengeance. Every bit of wood, iron, and leather used in the manufacture has fallen into the hands of some score of inventors and reformers, from the main body of the carriage down even to the footboard: there were saddles from which it was impossible to fall, bridles that would have checked the speed of Pegasus, stirrups which ensured graceful position better than all the lectures of an equestrian posture-master, and bits that might have afforded hints in the art of torturing worthy of a high prize in the rampant days of the Inquisition. There were two carriages, however, which surpassed everything around in the sheer absurdity of their conception. One of these was gravely recommended as having been built to perform the double duty of a coach and a boat. The body of the carriage was in part built in the shape of a clumsy boat, and could be disengaged from the wheels and springs so as to become a ferry-boat when occasion required. There was, however, one disadvantage attending this ingenious contrivance: the traveller must leave the vehicular portion of his carriage, together with the horses, behind him when he passed over a stream. A minor defect was that the pole of the carriage, destined upon occasion to perform the functions of an oar, was quite inapplicable to any such purpose.

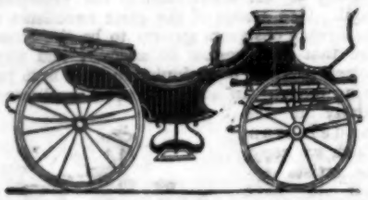
Scarcely less absurd was a carriage constructed for the special purpose of enabling passengers to enjoy the luxury of a roll down a hill or the side of a mountain without sustaining any injury, the principle of the construction being simply the suspension of the seats on a swivel balance. As few passengers, however, are likely to esteem a trip down a precipice as an addition to the luxury of a journey, we fear that there will be very little demand for carriages constructed on the principle of this invention.

There were, however, two carriages which struck us as very graceful in design, and elegant in execution; one of these was a four-wheeled phaeton, of singularly light and elegant construction, which for some unknown reason was baptized *une Américaine*. It is not very complimentary to the character for temperance, which our transatlantic brethren seem anxious to establish for themselves, that "an American" is the name given in Paris to strong rum-punch; and this led to some amusing equivoques and mistakes respecting this very



handsome phaeton, which assuredly did not deserve to be characterized as "a rum one." Its chief recommendation, besides the lightness and grace of its construction, was the ease with which it could be turned, a matter of great importance amid the narrow streets and sharp corners of Paris.

Near this was a *calèche*, of which we also give an engraving, which the French have named after Queen Victoria, assigning no



very complimentary reason for placing the vehicle under the sponsorship of her Britannic Majesty, for the papers inform us that the *Calèche-Victoria* is the very personification of fashionable coquetry. The style of this carriage, however, has become quite a rage, and we found that *calèches* on this model were constructing in the establishments of almost every fashionable coach-builder in Paris.

Multitudinous as were the articles of carriage and equestrian appointments displayed, the French themselves were forced to acknowledge that they were inferior to those of British manufacture, and that English saddles and bridles are still necessary to the perfection of a cavalier taking the field against ladies' hearts in the *Bois de Boulogne*. In cutlery the failure is as decisive as in saddlery; Sheffield is as safe as Walsall, in spite of, or rather in consequence of, the tariff of discriminating and protecting duties which the men of steel and iron have extorted from the Government. After a close examination of knives, scissars, razors, &c., of all imaginable and of some unimaginable forms, we have arrived at the conclusion that the French have not yet acquired the art of tempering steel; and, in conversing with some medical men, we found that the inferiority of the surgical instruments manufactured in France was very generally recognised. Yet these are the manufactures to which the Government finds itself compelled to give most encouragement.

Next to iron and steel the manufacture of caoutchouc for all possible and impossible purposes has become a perfect rage in France. The *Charivari* declares that "caoutchouc is everything; it is the commencement of socialism and the end of progress; without caoutchouc there is no salvation for industry. It is the Alpha and Omega of the Exposition; ask for any conceivable article and you are sure to get it made of caoutchouc." The first run of macintoshes in England was nothing to the success of Indian rubber in Paris. Balls for children, braces for men, and garters for ladies, might have been anticipated; but we did not expect to see the materials applied to elastic couches, beds, and mattresses. We have had experience of it in cloaks, but we had not previously seen it applied to caps and boots, still less did we expect to find it usurping the place of silk in parasols and umbrellas. Of these articles there was a superabundance in the Exposition; but there were none which seemed to us worthy of special mention.

We have already noticed the imitation of stone windows in baked clay, and pointed out its applicability as a cheap article of ecclesiastical decoration. In the Mechanical Saloon there were several specimens of this new application of brick-work in the florid style of Gothic architecture, which were fully as effective as if they had been wrought in stone. We were informed that statues of the saints in this material had been ordered for several churches, and that some had been already erected which were nearly as effective as elaborate sculptures. It was difficult, however, to obtain any accurate information respecting the mode in which brick-clay of such dimensions could be best baked or burned; for we heard it whispered that many articles had failed before any perfect figures were produced, and that there exists still an uncertainty in the manipulation which is likely to impede the general adoption of this system of church decoration.

Here we may notice, what was really the most imposing part of the Exposition, the windows of stained glass designed for a church in Rouen. One of these was the restoration of a window of stained glass belonging to the cathedral of Rouen, originally executed in the early part of the sixteenth century, but which had suffered sadly from the Iconoclasts of the Revolution. It was not until they were pointed out to us that we could distinguish the modern additions from the ancient fragments. On closer examination the modern pannels seemed to us more thoroughly interpenetrated with colour than those of ancient date.

It may not be irrelevant here to make a remark on the recent revival of the art of staining glass, and its alleged inferiority to the art as practised in the middle ages. The granular texture of some pieces of very ancient coloured glass which we have had an opportunity of examining appeared to us much looser than that of modern glass. There seemed to be a designed imperfection in the vitrification, which probably facilitated the amalgamation with colour. Most persons are aware that the very old glass in our cathedrals has the marks of being, to some extent, corroded by exposure to the atmosphere. It may, then, be a question whether some experiments in vitrification might not lead to the discovery of that texture of glass which is the best for receiving colour and transmitting coloured light. It is of course hopeless that such experiments should be tried in England so long as the manufacture of glass is subjected to the vexatious interference of the excise. In France we believe that the matter has engaged much attention.

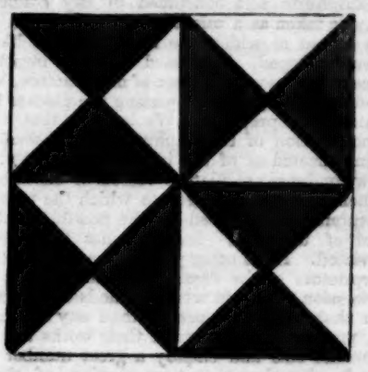
Messrs. Hauder and André, the restorers of the window we have just described, have also exhibited some magnificent specimens of heraldic paintings on glass, as suitable decorations for churches, monuments, and public edifices. The piece to which we allude contained the armorial bearings of Francis I. of France, Henry VIII. of England, the Emperor Maximilian, and the states of Flanders. The effect was exceedingly rich, and the niceties of heraldry were observed with a fidelity which forcibly reminded us of the palmy days of the French aristocracy. This was, however, not the only circumstance which showed that there is a growing respect for the heroic achievements of the old French nobility, and the historic fame which belongs to that body. The feeling, however, partakes too much of the transitory character of a sentiment to lead to anything practical, and the dreamers of the Faubourg St. Germain will commit a sad error if they build any hopes on such a foundation.

We were less pleased with a medallion of glass exhibited by the same manufacturers; it

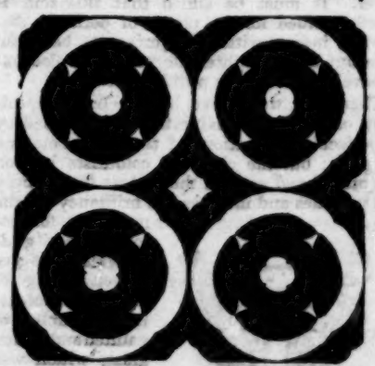
represented some passages in the life of St. Elizabeth, painted, however, in a style of mannerism which embodied the most marked peculiarities in the modern school of French painting, and therefore harmonizing very imperfectly with the ornaments in the style of the thirteenth century by which it was surrounded. The three large windows in the style of the thirteenth century, designed for a mortuary chapel near Rouen, were perfect in their pattern and were admirably executed. We inquired the name of the artist by whom the cartoons for these windows were prepared, and feel it a duty and a pleasure to state that they were the work of M. Henri Gérente.

It is natural to turn from stained glass to an analogous decoration for private houses—transparencies, and other forms of ornamental window-blinds. We have often been surprised, when we consider the extent to which these articles are used, that they have attracted so very small a share of artistic attention. During the last twenty years there have been some thousand inventions, and real or pretended ameliorations proposed for transparent window-blinds, and yet the absolute amount of improvement is almost a nullity. We have had changes in the material employed, of which some were recommended for admitting air and others for excluding water; we have had inventions to facilitate the raising and lowering of blinds, the facility of their management, the evenness of their balance, and every conceivable circumstance connected with their management, except the possibility of making them instrumental in artistic decoration. The consequence has been that window-blinds, which ten years ago seemed very likely to enter largely into the economy of domestic ornament, have been summarily dismissed from their experimental position as parts of domestic ornament. M. Gonzola has, however, produced some specimens of the window-blind which lead us to doubt whether the decision pronounced against coloured blinds, and the growing taste for reviving the use of Venetian *jalousies*, have not been too hasty a dismissal of the new and too sudden a return to the old. One of the specimens exhibited by M. Gonzola had all the effect of stained glass when viewed at a distance. The subject painted upon the transparency was a copy of Schlesinger's celebrated picture 'The Return from Mass,' and the painter himself would have confessed that he had received full justice in the copy. Gonzola's success has led many in Paris to try what can be done in order to revive the taste for pictorial transparencies as blinds, but so far as we have seen the artists have fallen into what we conceive to be the great error of not suiting these transparent blinds to the character of the room which they are designed to adorn. It would assuredly be absurd to have light transmitted through a rich Gothic pattern into a room decorated in the severe style of Grecian Art — to have flower-patterns on the blinds and statuary on the paper-hangings. The great error that was committed in England by those who attempted to raise the manufacture of transparent blinds into a business in England, and which, to a great extent, has been repeated in France, is that they have forgotten that a window-blind, however beautiful, is essentially a subsidiary article, and that when it has prominence over the other articles of hanging or furniture it violates the laws of harmony and proportion in the *tout-ensemble* of the apartment, a violation for which no merit of detail can adequately compensate. Gonzola has perceived this defect, and, if we are rightly informed, has sought means of bringing his designs into complete harmony with the apartments for which they are destined. In the revived taste for ecclesiastical decoration in France, the possibility of producing the effects of stained glass by means of transparent window-blinds has not been forgotten, but as yet the experiment has been tried on too small a scale to allow of our pronouncing decisively on its feasibility.

The use of encaustic tiles as a part of ecclesiastical decoration has been recently revived with great effect in England, and we trust, at no distant date, to have an opportunity of calling the attention of our readers to this branch of decorative art, once so flourishing, and now so inexplicably neglected. Although we know from other sources that this matter has excited much attention of France, we must say that the tiles displayed at the Exposition were far inferior both in design and execution to those produced by our English manufacturers. The French have succeeded best with the more simple combinations, such as we find in the earliest attempts at mosaic pavements; and that of which we have



given a specimen example in the accompanying engraving, gave evidence that even the most simple design in this mode of flooring may be used with very pleasing effect. Tiled floors are so common in the second-rate hotels, and in the suits of chambers which are so abundant in Paris, that we may well feel astonishment at the neglect with which the decorative capabilities of tiles have been generally treated. In the use of tiles for flooring, the simpler forms are far superior to the more complicated; and in Minton's courtyard, at his manufactory in



Stoke-upon-Trent, we saw specimens of tile-pavement superior to any which were displayed in the French Exposition. It appears to us that the French generally have applied to the tiles patterns which were far more appropriate to wood; for inlaid floors of wood have been long the great boast of French domestic and edificial decorators. We shall have occasion to return again to this fashion of inlaid floors when we come to speak of the carpets in the Exposition; on the present subject it is sufficient to say that the French have taken their principal notions of tessellated pavements from inlaid floors, which we look upon as totally and absolutely distinct from tiles in all their inherent characteristics.

It seems rather too sudden a transition to pass at once from the church to the kitchen; but as the various inventions for heating rooms, roasting meat, and performing all the other culinary operations have been assigned the place of honour in the Exposition, occupying the only saloon which has the most ample supply of light, we may be excused for devoting to it some momentary attention. In spite of all that philosophers and economists may write or preach, the open chimney and the sight of the cheerful fire will have more attractions for the people of England than the stoves which can graduate their heat to any desirable degree of the thermometer, or economise fuel so as to make an ounce of carbonaceous matter render more service than a pound weight does under our present wasteful system. The contrivances for economising fuel and making a small quantity of fire serve for more purposes than our largest kitchen fires could perform the tithe of, were too numerous for description. We were most struck with a kitchen range in which the operation of roasting was effected by means of a current of hot air kept constantly acting on the joint, a regulator of simple action diminishing or increasing the intensity of the current at pleasure; an apparatus for basting was superadded; and the whole was declared by a very celebrated *gourmand* to produce the most exquisite roast meat that ever yet gratified the palate of an epicure.

We are well aware that our account of the Mechanical Saloon is not likely to gratify our French readers. We thought it far the weakest part of the Exposition—they were resolved to believe it the strongest: we believe that there are a score of provincial towns in England which could turn out a far better show of engineering and machinery at a week's notice—all Paris believes, as an article of national faith, that their display could not be rivalled in the world. Their theatres resounded with the song—

> "Ces rails, ces fers, ces superbes machines,
> Que les Anglais nous vendaient à grands frais,
> Mieux travaillés, sortent de nos usines
> Et nous pourrions en revendre aux Anglais."

Which we may venture to translate thus:—

> The locomotives and the rails which England sends us here,
> For which their manufacturers have charged us very dear,
> We'll soon surpass, and all the work of that proud island spurn;
> Nay, more than that, export machines to her shores in our turn.

It would have made what heralds call a large abatement in this expectation if the French machines had been exhibited in full work; we more than suspect that many of them would have been found wanting; and we are disposed to believe that a lurking consciousness of this was the principal reason which induced the Directors of the Exposition to reject the proposal for supplying motive power for the use of this saloon.

While we believe that French machinery is far inferior to that of England, we incline to believe that, in the manifold applications of pressure by means of the screw or the hydraulic press, the French have an advantage. Among the more modern articles, embossed leather held a very prominent space, and in this we were informed that the screw-press was the principal agent of impression. So excellent were the specimens produced, that we should be inclined to place embossed leather very high among the subsidiaries of decoration, and to augur for it a very extensive application in the ornamental arts.

The Exposition was more rich and more successful in its specimens of chemistry applied to the Arts than in its more ostentatious display of dynamical powers. This is, of course, a department not immediately connected with our immediate subject—the utilization of the decorative arts; but there are, nevertheless, even in this respect, some chemical preparations which must not be passed over without notice.

The improvements in the electrotyping and Daguerreotyping processes are nearly all in the direction of the chemical manipulation; and among the articles exposed were some Daguerreotype plates more delicately sensitive of light than any which we have yet seen in England. Electrotype copies were very numerous, but there were none of remarkable magnitude. In the preparations of colours for artists the French appear to be superior to our countrymen; there was a great display of colours prepared for the use of enamellers, whose profession seems to be fast reviving in Paris. But in this department we were most struck with a display of vitrifiable colours for painting and printing on the different kinds of porcelain and the several varieties of earthenware, contributed by the brothers Desfossè. They exhibited a *tableau-palette*, and several specimens of porcelain and earthenware, decorated with their enamel colours, but having no claim to attention either for design or pattern, the chief object aimed at by the exhibitors being merely to show variety of colour. Hitherto, as we have already mentioned, it has been found impossible to give the hard porcelain that beautiful and delicate turquoise shade which is so exquisite on the tender porcelain. The Messrs. Desfossè have discovered and fabricated with new materials, which they aver have never before been tried in the arts, a turquoise shade of colour which successfully imitates on hard porcelain the well-known hue of the "old Sèvres turquoise." They have thus succeeded in solving a problem which for nearly half a century perplexed the chemical preparers of colour for the pottery manufacture. Although this colour has been used very extensively for more than five years, we believe that the nature of its composition is still a secret. These gentlemen have also the character of preparing the best colours over which gold is to be subsequently laid, and their specimens of what is called "dead gold" had more perfect metallic beauty than any others in the Exposition. Another meritorious product of the chemical skill and ingenuity of these gentlemen were chrome-greens, colours originally discovered by their father, and brought to perfection by the assistance of M. Brougniard, the present director of the Sèvres manufactory, and which have almost wholly superseded the copper-greens formerly in use.

Among the other chemical products we noticed "purple of Cassius," obtained by a new process invented by M. Duval, which enables him to manufacture the article at a saving of thirty per cent. on the old methods of manufacture; the tannin usually known in commerce as that of M. de Pelouze, which is also produced by a new and cheap process, and is found preferable to the old by silk dyers; crystallized bismuth, a new process; proto-sulphate of iron, a new process; and desiccated gelatinous precipitates, also prepared by a new process. M. Duval also exhibited some new *allumettes*, which we had not an opportunity of testing, but we copy from the printed advertisement put into our hands the following account of their qualities:—"These *allumettes* light without any explosion, receive no injury from damp, and may be carried about with the greatest safety, as they cannot take fire without the intervention of the possessor; they support flame for a sufficient length of time to allow a person to go up or down several flights of stairs if a taper should not happen to be convenient, and the management of them may be intrusted even to the youngest child with perfect safety." A chemical preparation for cleaning gloves, exhibited by M. Duvignan, deserves to be noticed. We saw its efficacy tested on a pair of gloves of glazed leather, which were selected for the purpose of the experiment on account of their very perfect discoloration, and a quantity of the cleansing fluid costing less than one penny was sufficient to restore the colour to its original brightness without leavin; any stain or causing any contraction.

We must not pass over "*la poudre-ferre*," which has now appeared twice in the Exposition, and has been recommended by the medical faculty of Paris as the best means of aerating fluids, such as water, lemonade, &c. It is very extensively used by the French who have settled in Algiers, and is said to be of immense value in correcting the bad effects of the water in that colony.

The chemical products brought from Javel, near Paris, were well calculated to sustain the ancient celebrity of that manufactory of sulphuric acid, and of the sulphates of copper and iron. According to M. Dumas, one of the most eminent of modern chemists, the quantity of sulphuric acid consumed in any country may be taken as a tolerably accurate index of the extent to which the industrial arts have been developed. Impressed with the importance of this powerful agent of manufacture, we made some inquiries respecting the process by which it is prepared. We learned that the concentration of the sulphuric acid, instead of being effected as of old in glass cucurbites, is now conducted in platina vessels of enormous dimensions. The danger to which the manufacturers were exposed by the possible explosion of the glass cucurbites has thus been obviated. In all other parts of the process, the proprietors of the Javel works affect to be in possession of certain secret methods which render their acids more perfect than any that can be produced, and, though their works are of immense size and employ a great number of hands, they boast that no portion of their mysteries has ever been betrayed.

The discolouring processes of chlorine are said to have been first discovered at Javel, and its bleaching fluids and powders are generally and justly valued. Recently some of the proprietors have successfully tried that variety of sulphuric acid which was generally known to dyers as "the fuming acid of Nordhausen," which used to be imported from Germany at an enormous expense. At present the French dyers derive their supply of it exclusively from Javel. It must be added that this acid is chiefly valued for its power of perfectly dissolving indigo without injuring its beautiful blue tint in the slightest degree; it is also extensively used for the purification of oils.

There was, we believe, but one or two specimens of fluoric acid exhibited, accompanied by some feeble applications of the acid to etching on glass; but the chemical colourists had on the other hand exerted themselves to multiply the varieties and increase the brilliancy of the materials for colouring and gilding glass. We give an engraving of one very successful example of painted and gilded glass, which was one of the most charming objects in the entire Exposition. The glass ground was a semi-opaque opal, and the effect of the colours was immensely increased by the cloudy transparency of the vase. We do not, however, admire the design, which seems to us a little too cylindrical.

The curved outline wants force and expressiveness, but the design of the pattern is perfect in all its parts. It would of course be impossible for the art of the wood-engraver to give any notion of the brilliant lights and colours which the vase displayed; but, as we shall again have occasion to refer to the glass and its decorations in the Exposition, we shall here content ourselves with directing attention to the improvements that may be expected in the decoration of glass from the progress of science among the chemical colourists.

A new process for the gilding of glass by electro-chemical means is said to have been recently discovered, but we were unable to ascertain whether any of the articles displayed in the Exposition were ornamented by this process. Privately, however. we were permitted to see its application to ornamenting decanters, tumblers, wine-glasses, &c., with the ciphers, crests, and coats of arms of their respective owners. The decorative effect was very beautiful, and we were informed that the process was cheap. So far as we could determine experimentally, the patterns are indelible, at least after a great variety of trials we could not find any means of effacing them without the destruction of the glass.

The processes of damasking on steel, devised by the Duke de Luynes, or at least attributed to him in the catalogue of the Exposition, may be placed under the head of the applications of chemistry to the Fine Arts. The sword-blades, gun-barrels, and other articles damasked by the ducal method fully equal the most precious specimens of oriental manufacture. It deserves also to be mentioned that this nobleman, who is a profound oriental scholar, has collected all the information respecting the manipulation and damasking of steel to be found in Arabic and Persian authors, and has published his labours for the use of manufactures. It was believed by the Jesuits that many processes of Art have been tentatively discovered and traditionally preserved by the nations of Central Asia, which might be usefully investigated by travellers who united a knowledge of chemistry and mechanics to their linguistic accomplishments. Klaproth's essay on the use of the compass in China, a work which we are surprised to find so little known in England, repeats and enforces this suggestion. It would be a national service for the Oriental Translation Fund to procure translations of all the Chinese works detailing processes of art and manufacture, and to select such of them for publication as seem most likely to convey useful hints to the British artisan. We cannot omit this opportunity of bearing testimony to the interest which the nobles of France, whether of the old or new aristocracy, have evinced in the progress and improvement of the arts and manufactures. The barons Charles Dupin, Séguier, and Thénard, were members of the jury for regulating the Exposition and bestowing prizes on the most meritorious articles exhibited. They were almost every day present at the saloons, and were indefatigable in their exertions to render the display worthy of their nation.

Percussion-guns have been brought to our recollection by the damasked sword-blades. Those which most attracted our notice were the fowling-pieces and muskets exhibited by M. Martin, which primed themselves by a self-acting movement. The chamber for caps fixed to the stock of the gun contains from thirty to a hundred primings, and the caps are fixed in position without being touched by the fingers. We notice this invention because it is about to be introduced into the military service of France, and has been found, as we were informed, particularly valuable in its application to the carbines of the cavalry.

The French boast, and not without reason, that they alone of all the nations of the earth have perfected the alliance between chemistry

and cookery; we may therefore be excused for noticing in this place, though very briefly, the liquid and solid *comestibles* which formed part of the Exposition. We should assign the first rank to some new kinds of wine, which were very highly appreciated by connoisseurs, had not the *Charivari* covered the subject with ridicule by demanding a place for the manufactured wines of Bercy, of which that paper gives the following amusing account:—"They reckon this year somewhere about four thousand exhibitors, all of whom, if we may believe their words and prospectuses, have created products excessively remarkable, worthy gold medals of the largest size and laurel-crowns of the same pattern. We are far from wishing in any way to detract from the merit or diminish the glory of these gentlemen; but, after a laborious examination of the legions of articles crowded together in the Carré Martigny (on which the Museum-Palace for the Exposition was erected), we have established to our own complete satisfaction so far as fact is concerned, and to our still more complete dissatisfaction so far as feeling is concerned, that the inventors who can most justly claim the honour of invention in our age have been excluded from the Exposition—or, what is more probable, have absented themselves voluntarily. This is carrying the contempt of glory too far; and we feel ourselves bound by our love of justice to offer some violence to the modesty of our ingenious countrymen, by giving some account of their products—for they possess secrets of fabrication which ought to descend to the latest posterity—for the purpose of warning future generations to abstain from the use of each and all of them. In the first place, then, we find that the worthy wine-merchants of Bercy have not sent any specimens of those delicious clarets manufactured from the oxides and salts of lead, the best logwood of Campeachy, and the most perfect streams of the Seine. When consumers desire claret of the first quality, and come up to the price, it is only just to the manufacturers of Bercy to declare that they show themselves to be conscientious men, and only employ on such occasions water of the Seine which has been filtered with extraordinary care. The culture of the vine and the management of the grape, for the improvement of which large prizes are so liberally offered by the public authorities, is reduced to its most simple and perfect form; if ever there was complete simplification of industry it is to be found in this process, and therefore we have a right to demand a medal of gold for the chemical wine-growers of Bercy."

Coffee has escaped the lash of the satirist, though we fear that its adulteration has become an important branch of industry. The number of machines exhibited for obtaining pure coffee by mechanical filtration, chemical distillation, &c., surpassed all powers of calculation, but not one of them produced such coffee as the orientals prepare with the most coarse and simple apparatus. Instead, then, of attempting a description of the thousand and one *cafétiers* displayed in the Exposition, we shall give a simple receipt which is worth the whole of them put together. Purchase your coffee raw, and do not roast it until it is about to be used; expose it to the fire only so long as will suffice to give it a delicate shade of brown; then pound it well in a pestle and mortar until it is perfectly triturated. Pour boiling water upon it in this state and you will have the most delicious coffee at once fit for use.

Chocolate and tea come next to coffee; but the use of tea in France is very limited, while chocolate appears to be increasing in public favour. Our satirical critic of the Exposition falls foul of the venders of chocolate. "It is a very ingenious notion, and at the same time eminently patriotic, to become independent of foreigners for the supply of a common article of food. Political economists may tell us that we cannot sell where we do not buy, but no one in these flourishing days of monopoly regards political economy: it is the fashion to fall back on the nonsensical maxims of our grandmothers, and raise a cry for the protection of home productions. Now, let no man be such a fool as to suppose that a single atom of this protection is designed for the benefit of consumers—far from it; in every country consumers are the pigeons to be plucked for the benefit of excisemen, monopolists, and home-growers. It would be absurd and unpatriotic for our manufacturers of chocolate to go to distant tropical climes for that foreign fruit, the *cacao*, when such excellent lentils grow spontaneously in Picardy and Lorraine. Hereafter France will be enabled to supply itself with this luxury; and none but the most unreasonable sticklers for the purity of chocolate will have any reason to complain. Have we not, then, established sufficient grounds for demanding that a silver medal should be granted to the ingenious but detestable chocolate manufacturers of France?"

The biscuits and confectionary displayed in the Exposition furnish the satirist with an opportunity of showing up some of the adulterations of food which are practised in France. We trust that we shall be excused for taking advantage of his lively sketches as a relief to the general sameness of a descriptive article extending to the length which this must necessarily occupy, and because the papers of the day give us abundant proof that some of the artifices and inventions described are not unknown in England. "We deeply regret," he says, "that certain bakers have not sent to the Palace of Industry some specimens of those brown cakes in which bran enters largely into admixture with flour—said bran being nothing better, more nor less, than sawdust; or some of those beautiful white loaves, into the construction of which plaster of Paris enters in very large quantities. This is a vast improvement in social economy, or we know nothing of the matter. These bakers, being philosophers of the first water, said, 'Sawdust has not as yet been applied to any purpose of social utility, let us try if we cannot make it a commodity practically advantageous; let us not permit any product to be wasted which is furnished to us by that Nature which has created nothing in vain!' As a conclusion from this process of reasoning, in which Aristotle himself could not detect a flaw, the bakers of Paris have manufactured from the dust of oak, beech, and walnut, the finest oatmeal cakes that ever yet were seen. At least they charm the eye; with the stomach, perhaps, it would be another matter.

"Those who have converted ground gypsum into white flour have shown themselves still more ingenious; they were aware that no artists had as yet contrived a system of decoration for the interior of the human frame, and they therefore devised a plan for covering the coats of the stomach with the finest specimens of stucco. It is true that this can only be discovered by dissection; but it is consoling to reflect in sickness that after death we may serve to aid in developing the taste of students of anatomy.

"It would have been desirable if certain bakers of Paris had sent to the Exposition their ingenious balances, by the aid of which they have managed to make a pound avoirdupois shrink into fourteen ounces. This is an estimable proof of the progress of economic industry which cannot be too highly appreciated. We therefore call upon you, gentlemen and noblemen of the jury, to bestow a gold medal on these ingenious bakers, who will one day be the pride and glory of the French kneading-trough. They will all end by retiring from their business to their estates, and of course not a few of them will end by being decorated with the grand cross of the Legion of Honour."

To return from this digression into which we have been insensibly led, but which, we trust, will not be deemed unpardonable, we have to notice, in terms of high approbation, the processes for preserving meat, devised by M. Prieur-Appert. Boxes of various aliments, hermetically closed in 1816, 1820, and 1822, were opened by a committee delegated for the purpose, and no signs of decomposition were found in the animal and vegetable aliments which they enclosed. It is highly creditable to this gentleman and to his father, who first introduced this branch of industry into France, that though they have spent toil, time, and large sums of money on bringing the art of preserving aliments to perfection, yet they have never kept any of their processes secret or protected them by a patent. On the contrary, they have published all the details at their own expense in five successive editions of the history of the process, and they have sedulously endeavoured to prepare papers of direction sufficiently explicit to enable scientific persons employed in the marine service to fill the boxes that may have been emptied with fresh supplies of preserved meat whenever the vessels come into port. The French marine and the military force employed on the coasts of Africa have largely profited by M. Appert's discoveries, and the public authorities have not been slow to recognise his merits; he has received at various times four gold medals, and two prizes of two thousand francs each.

Another article of the Exposition, which, if it fulfils its promises, is destined to play an important part in the arts of construction, and particularly in ship-building, is the "marine glue," exhibited by Messrs. Clouet and Co. It is rigid or elastic according to the purpose for which it is required; it is perfectly insoluble in water, and its adhesive force is equal to that of the grain of the hardest wood. It is applicable not only as a glue to wood, but as a cement to marble and the metals, having the additional advantage of preserving the latter from oxidation. It is susceptible of a fine polish when used as a varnish, and is used in its soft state to cover ropes, &c., instead of tar. We are not, indeed, able to vouch personally for its success in all these particulars, but the proprietors of the invention open their stores freely to all who wish to test the efficacy of the article.

Another invention designed not only to aid the progress of domestic luxury, but greatly to advance the comfort and contribute to the health of sailors and other persons who visit hot climates, is a machine for making ice, which differs in its principles, at least so far as they are apparent, very little from the machines of the same kind which are exhibited in London. The Parisian machines are, however, less costly and more effective than those of English manufacture. We trust that these ingenious inventions will be brought to a still higher degree of perfection, so as to enable persons of moderate fortune to enjoy a luxury which is now too much restricted to the use of the wealthy. This reminds us of the number of contrivances for cooling liquids which were displayed in the Exposition; the most effective, however, were those made of porous earth, in which the cooling process is of course effected by the medium of evaporation. The best design which we saw on any of these earthen wine-coolers was to a great extent borrowed from Minton's bacchanalian jug. We saw no wine or water coolers of the porous earth at all equal to those produced at Wedgewood's manufactory; and we believe that the earthy material, which is distinguished by taking a rich fawn colour when dry, is peculiar to Staffordshire.

But the French may excuse this assertion of

inferiority, especially as we are bound to confess that one of their silver wine-coolers, both

in design and execution, appeared to us the most perfect specimen we had ever seen of sculpturing in silver. We shall have occasion in another place to direct attention to the exquisite group of Grecian figures with which it is adorned, which, in chasteness of form and purity of expression, deserves to be regarded as one of the finest specimens of relief which has been produced of late years. This article was further remarkable as almost the only example of modern adaptation of Greek Art which the Exposition contained. It forcibly impressed upon our minds that the Hellenic forms have in their nature some inexplicable appropriateness to silver ornamental designs; in all cases where they have been used judiciously, and with ordinary skill in the application, the effect has been perfectly delightful. We give here another example of Grecian Art well applied in

modern ornament. The artistic management of the drapery is particularly worthy of notice, and there is a vitality and buoyancy in the figures which give animation to the delicate graces of their form. The pedestal and plinth are both creditable to the designer, and the more so as modern French artists have a sad tendency to overload their patterns of ornamental tracery.

We were informed, and we believe with truth, that both the models of these beautiful articles were designed from living figures. It may, however, be mentioned among the advantages possessed by French artists that the lay figures manufactured in Paris evince a greater amount of skill, taste, and ingenuity in their construction than any which we have seen in England. We were particularly struck with a lay figure (*mannequin modèle*) sent to the Exposition by M. Gagnery, who has devoted more than twenty years of his life to perfectionating this branch of industry. The *mannequin* which he displayed is constructed with such exactness that it can be made to take and keep any conceivable position of the human form. The mechanism of the several joints and articulations of the body are executed with a nicety and precision which no other manufacturer has ever before attained, the very joints of the fingers move as in the living hand. We may also mention the *mannequin* of a child, exhibited by Madame Mauduit, along with numerous other lay figures, as one that engaged and merited attention.

The Directors of the Exposition—probably for the purpose of encouraging the manufacture of human models, by showing that the most trifling imitations of the human form may claim some place among the manifestations of industrial art—allowed dolls to be introduced in a very conspicuous part of the Industrial Palace. We are not of those who condemn them for this concession, and we do not join in the sarcasm that, having collected a store of toys for men, they found it necessary to do something for children. In the first place, the dolls themselves were very beautifully fabricated, particularly a set dressed in all the varieties of Parisian costume, prepared by Belton and Jumeau, at the command of the Minister of Commerce. We were a little curious to find out what could have induced a grave minister of state to give orders for the manufacture of a set of puppets, and learned with some surprise that they were destined to form part of the outfit of the gentlemen delegated to visit China for the purpose of discovering what outlets for French manufactures are likely to be opened by the recent change of policy in the Celestial Empire. The President of our Board of Trade would never have hit on so bright an idea as the expediency of enlightening the ladies of Pekin and Canton on the skill of the Parisian tailors and *modistes*. There were some very beautiful dolls of moderate price exhibited by a manufacturer in the La Rue St. Denis, which were so constructed as to stand easily erect, and not to suffer any injury from a fall. These had the advantage of being moderate in price, considering the neatness of their execution, and the inventor had a large supply of customers at his shop from the English visitors of the Exposition. But the toys of M. Guillard were those which excited most attention, in consequence of the great ingenuity of their mechanical contrivances. There was a rope-dancer who threw more wondrous summersets than ever were displayed at Astley's; a fencer who had six distinct movements, which rivalled the skirmishing of Bobadil; a puppet which walked and talked; and a *tableau mouvant* of musical apes playing a concert on the violin, constructed on the principle of our sand-toys, which even grave critics like ourselves were forced to stop and admire. There were some minor specimens of automata, but none requiring any particular remark.

Among the useful objects provided for children, which combine ornament with instruction, we must assign a prominent place to the raised maps, or, more properly, the maps in relief, originally invented in Germany, but which the French have brought to very great perfection; we noticed maps of Europe, France, Germany, Switzerland, and Spain, Mont Blanc with its system of valleys, the banks of the Rhine, the environs of Paris, and some of the harbours of France. Some of these maps in relief were scarcely less effective than the models of the French naval stations which form so conspicuous an ornament of the Marine Gallery in the Louvre. They produce the same effect as if we were enabled to survey the country from a balloon—exhibiting to us the chains of mountains with their eternal snows, the levels of table-land, the seas, the lakes, and the rivers, with a distinctness which is unattainable in a flat surface. In consequence of the recommendation of M. Jomard, these maps have been very extensively adopted in the public schools of France, and doubtlessly they would have similar success in England if they were sold at the same moderate price as in Paris.

Gymnastics now form a regular part of the French system of education, and it is generally agreed that the physical development of the youthful powers of body is hardly less important than either intellectual or moral training. It is not without reason that Juvenal exclaimed—

"Orandum est ut sit mens sana in corpore sano"—

the health of the body exercises a very powerful influence on the sanity of the mind; and a very little family experience will show that nothing will more fatally operate on the moral stability of the infant mind than physical weakness or bodily disease. We examined very carefully the gymnastic apparatus of Colonel Amoros, both at the Exposition and in the splendid covered Gymnasium which has just been erected under his superintendence, and we are bound to say that we never saw an apparatus better calculated to train youth in strength, courage, and skill.

We may, perhaps, place under the head of instruction the specimen of the great work on "Natural History," undertaken by a reunion of the members of the Institute and the professors of the natural sciences, and edited under the direction of M. Charles d'Orbigny. In this work will be incorporated the substance of the principal encyclopædias of natural history, the works of Buffon and other naturalists, full descriptions of all parts of animate and inanimate nature, and of natural phenomena, together with the principal applications of organic and inorganic matter to agriculture, medicine, and the industrial arts. The work, we were informed, will consist when complete of sixteen large volumes octavo, seven of which have been completed. The coloured plates displayed as specimens at the Exposition were superior to anything of the kind ever yet produced, and had all the force and vividness of original pictures. Should, as is probable, an attempt be made to reproduce this splendid work in England, we trust that it will fall into competent hands, and not be jobbed by an ignorant or niggardly management. In short, we hope that it will escape the fate of Cuvier's great work, which was presented to the English people in slovenly form, slipshod style, and blundering translation, perfectly disgraceful to our age and country.

In the portions of this work which we consulted we found with pleasure that the science of agriculture is engaging much of the attention of French statesmen and philosophers. While travelling through Normandy we were much struck with the amazing differences between the systems of farming in localities at very little distance from each other; while in one field the plough or harrow was scarcely advanced in construction beyond that which was employed in the days of the Pharaohs, we found in other places some of the latest mechanical refinements brought into immediate and constant use. We also found that the best farming was practised in the immediate neighbourhood of manufacturing establishments, which are rapidly multiplying in Normandy, while agriculture was at the lowest ebb in the more remote rural districts adjoining Brittany. We may here incidentally remark that France still possesses secluded spots in which the inhabitants seem scarcely to have altered

their character since the days of Julius Cæsar; and that in the wilder parts of the south, spinning is still conducted as a domestic branch of industry, the women using the same kind of spindles as we find delineated on the monuments of Egypt. We copy one representation of Egyptian spinning from the collection of

antiquities in the Louvre. It is of importance to see that improvement in the arts and in machinery are gregarious, and that a discovery in any one branch of industry soon extends its influence over all the rest. Many of those who have most improved agricultural implements in England were also those who had distinguished themselves as inventors in spinning and weaving machinery; we may particularly mention Mr. Heathcote, who is at once the great improver of the bobbin-net frame, and also the inventor of the steam-plough.

Our attention was directed in the Exposition to the inventions of M. Quentin Durand, with which we were so much struck that we inquired into the circumstances of his history, and the account which we received is far too interesting to be omitted. M. Quentin Durand was originally a joiner and millwright; but even in his apprenticeship he displayed so much mechanical ingenuity as to attract the notice of his employers, and induce them to place means of self-improvement at his disposal. Every year of his life has been distinguished by some ingenious invention, sometimes applicable to one industrial art and sometimes to another, but all having attained some object of direct and obvious utility. His attention, however, was more especially directed to the improvement of agricultural implements, which before his day were probably little, if at all, advanced beyond their condition in the middle ages of darkness and feudalism. In the course of his career he has invented more than a hundred machines or instruments destined for agricultural purposes, which enable the labourer greatly to economise his time, and which, while they greatly diminish the amount of his fatigue, ensure larger returns of produce as his reward when the time of harvest arrives. In many, if not most of these agricultural machines, he appears not so much an improver of implements already known and familiar in use; on the contrary, it is his peculiar merit to create entirely new models, of which not only the original idea is exclusively his own, but even all the details of manipulation and execution. In fact he prepares his models with his own hands; he executes them alone and unaided, whatever be the material necessary to be employed, whether wood, iron, or copper. No difficulties of construction ever daunt him—no practical inconveniences are found to limit the applications of his inventive genius. His dexterity is not less remarkable than his ingenuity: it would be difficult to find so skilful a hand realising the conceptions of inventive intelligence.

During the last twenty-five years, the varied productions of M. Quentin Durand's invention and skill have been displayed at all the great Expositions of National Industry which have taken place in France, and they have also held a very conspicuous place in the special Expositions which have been held by the many societies formed in France since the Revolution, for industrial and agricultural improvement. In no single instance have his productions been passed over without notice; on the contrary, they have always been highly appreciated, and mentioned in terms of high and merited approbation by the several juries appointed to pronounce on the merit of the articles exhibited. He has been rewarded with several medals; but in France, as in England, mechanical inventors are too often doomed to find that the want of solid pudding is badly compensated by empty praise. Notwithstanding the merit of his inventions, M. Quentin Durand still continues to struggle against the force of straitened circumstances, but we trust that he may yet receive his reward from a grateful nation. Out of more than a hundred articles invented by M. Durand, twenty were selected for display in the Exposition; but, owing to the want of room, they have not all been received. We can only notice the machines for chopping provender for horses and cattle, a very ingenious winnowing machine, and a complete gardening apparatus, the most perfect which we have seen.

Returning from rural occupations to city life, we must first notice the specimens of wood-pavement constructed on the stereotomic system, invented, we believe, by the Count de Lisle. During the last three years, many experimental applications of this pavement have been made in Paris, particularly in the Rue Neuve des Petits-champs and in the Rue Richelieu. The Count de Lisle's system is that which has been adopted by the Metropolitan Wood-Pavement Company in London. We must be excused for adding that some new system of pavement is decidedly wanting in Paris, where the square stones inflict absolute torture on strangers, particularly in those streets not furnished with asphaltic bottoms.

Another improvement in the police of the Metropolis is connected with a subject which at the present moment excites considerable interest in England—the disinfection of drains and sewers, and the safe collection of the drainage and similar matters for agricultural purposes. To this important subject the attention of men of science in France has long been anxiously directed, and with very considerable success. M. L. Krafft, a favourite pupil of the celebrated Guy de Lussac, has been honourably distinguished for his successful application of chemical and mechanical contrivances to produce the disinfection of sewers, drains, and cesspools; and he has shown that the questions connected with this subject are not less important in an economic than in a sanitory point of view; for the *poudrette* prepared by the company over which M. Krafft has been declared by the most eminent agricultural chemists to be the most valuable manure which is yet known. It is to be wished that the interior economy of houses should form an essential part of sanatory police in France; and perhaps in England active superintendence of the sanatory condition of dwellings would be found of some advantage to the general health of the community. It is obviously unpleasant to enter into any minute discussions on this subject, but the few observations we have made may have the effect of leading others to devote attention to the matter.

The decoration of the walls of houses is beginning to excite more attention than has been bestowed on the subject since the Revolution. Among some new effects there was one design for a bathing lodge or room, which struck us by its simplicity and neatness; the wall was a light scagliola, with niches for urns and vases; and in the exhibition of the Beauvaise ware we

saw the model of a vase designed for such an apartment. There was also a design for a lady's dressing-room, in which considerable taste and delicacy were displayed; but the artist, perhaps from malice, had introduced a multitude of contrivances for disguising the female form, and a countless assortment of bottles and boxes for essences, distilled waters, and perfumes. These luxuries, indeed, seem to have almost a national importance in France, for they were assigned a very honourable place in the Exposition; and the announcement of the merchants of perfumery put into our hands were so numerous that one might have expected to inhale throughout Paris no breath of air that was not loaded with the aromatic fragrance of Arabia Felix. In spite of the labours of M. Krautz and his fellow-labourers, to which we have already referred, those who formed such expectations would be sadly disappointed, for there are few cities in which passengers are more frequently annoyed with "a rank compound of villainous smells" than in Paris.

The imitations of marble in the Exposition were very numerous, and some were wholly new to us. Among the most ingenious of these imitative inventions we should be disposed to place the Marmorigènes, which were made of metal, covered over with the most perfect imitations of the richest marble. This invention has been successfully applied to columns, vases, pedestals, slabs for chimney-pieces, &c., which are sold at a very moderate price, certainly far less than one half the cost of similar articles in real marble. Another imitation attracted our notice, it was marked as the work of a decorative painter, who is said to be highly distinguished for his imitations of inlaid work. The piece which he exhibited represented a mosaic painted on oak, exhibiting all the colours and varieties of marble collected together with exquisite taste and precision: the illusion was so complete that we could scarcely credit the account given in the catalogue, and we were not convinced of the deception until we had actually handled the article.

The usage of coloured and painted walls has for some time exhibited a tendency to decline: the difficulty of preventing the colours from being injured by damp seemed insurmountable, and it is only within the last few years that the practice has been revived, principally in consequence of the exertions of Messrs. Mirabal and Moreau, who have made this subject a matter of special attention. Among the products they exhibited was a kind of "desiccative priming," which was designed to remedy the defects, or perhaps, we might say, to complete the seasoning of all damp and weeping walls, especially those which give out moisture in consequence of the deliquescence of saline substances used in their construction. It is very generally known that the walls of houses in seaport towns are almost invariably found covered with humidity in a wet season: it is most probable that this defect is occasioned by the use of sea-sand, saturated with saline matter, in the mortar. This defect is remedied by the use of Mirabal's *peinture propre à l'assainissement des lieux humides* and *salpêtres*: it is only used as a preparatory priming, for it penetrates into the wall more or less deeply according to the amount of the humidity which is to be corrected; but, after its application, the wall becomes fit for the reception of paper-

hangings or ordinary paint. We made very anxious inquiries respecting the success of this invention, and were assured, on authority every way worthy of confidence, that it perfectly answered all the purposes desired.

These manufacturers also exhibited another preparation for a similar purpose, which they denominated *nouveau siccatif evitant le frottage des appartements*. This siccative preparation differs from those previously in use by being made with oil instead of spirits of wine, and is similar in composition to that which we described in the preceding paragraph. Its advantages were said to be, a power of completely absorbing all humidity from the wall or floor on which it is laid; its perfect adherence to the wall, not being liable to scale off like the siccatives prepared from spirits of wine; its susceptibility of a high and brilliant polish, which the compactness of its surface enables it to retain; its drying very rapidly, and at the same time exhaling no unpleasant odour; and, finally, that its use does not require the precautions against danger which are indispensable in the application of all varnishes composed of spirits of wine. It is very easily kept clean, requiring merely to be washed with plain water, and then dried with a flannel slightly impregnated with oil.

M. Moreau also exhibited a green paint for all kinds of buildings, which is called after his name, and is designed to supersede the use of the common green paint made of verdigris, which is liable to so many grave objections that it deserves to be abandoned and even prohibited. The Moreau green has all the valuable qualities of that which it is designed to supersede, supporting equally well the admixture of whitelead, and improving in brilliancy by exposure to the air. It has the further advantages of not losing colour when exposed to the action of heat and light, and not receiving that sickly yellow tinge by which the verdigris greens are soon disfigured. We saw some country-houses in the vicinity of Paris where this Moreau green had been used, and we certainly prefer it to any of the old greens in house-decoration.

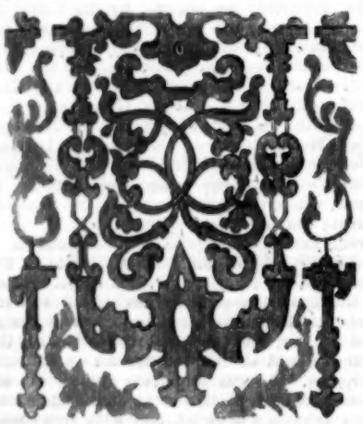
Specimens of floors of inlaid work, and of other wood mosaics, were brought under our notice; we shall, on another occasion, examine at full length this mode of decoration; but we cannot dismiss the subject here without recommending to our cabinet-makers the new mechanism of jointing and dovetailing devised by Luisler, which exceeds in its accuracy of fitting any specimens of the art that we ever before witnessed.

The tapestry exhibited did not appear to us of the highest order; but we were shown some designs in the style of the Gobelins produced by Madame Lisè which merited the highest praise. It is probable that the Bavarian embroidery frame, which has been very successfully applied to embroidering velvets by Mr. Schwabe, of Manchester, might be extended to the manufacture of tapestry if a taste for this magnificent but rather sombre style of decoration should so far revivè as to give a fair prospect of remuneration for the necessary expenditure.

Although we shall have occasion to dwell at more length than we can now afford on the subject of the paper-hangings displayed in the Exhibition, we must say a few words on the subject here in connexion with our more immediate topic, house decoration. We select two paterns; one of which illustrates the small panel, and the other the running pattern. The first of these exhibits a happy combination of the minor elements of *la Renaissance* with the more elaborate and, at the same time, the bolder forms of the style of Louis XIV. It will be seen that the sweeping outlines of the larger portions of the pattern exhibit a complete harmony of curved forms, the diversities of the minor parts being all strictly subordinate to the grand unity of the entire. A great portion

of the excellence of this pattern is necessarily lost in our engraving, which cannot, of course, give the exquisite relief and blending of its colours. The flowers in the centre were really as fine as some of the ordinary flower-pieces painted in oil, and the groundwork had at a distance the effect of the richest satin.

The running pattern was more elaborate in



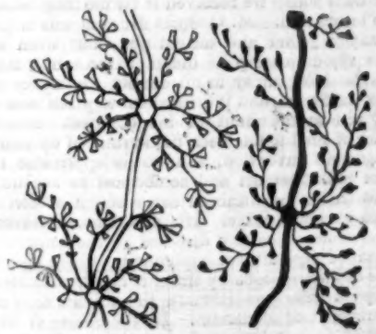
its design, and more purely in the style of Louis XIV. Where the design for running pattern is composed of purely fanciful forms, and not a reproduction of flowers, scenery, &c., we should recommend the adoption of a design, which, however apparently simple, should have sufficient complication not to be easily taken in at a glance. The running pattern is designed to extend over a wide space, through which it is to be continuous; and the skill of the artist must be exercised to hide as much as possible the facts of reproduction and repetition. Now, this fact of repetition becomes almost painfully apparent when the pattern is too definite, and its forms brought too obviously into mathematical relations: the style of Louis XIV. errs generally in the opposite extreme, for it frequently discards not merely mathematical but even artistic relations between its parts, reminding us of Gray's old manor-house, full of

> "Long passages that lead to nothing."

In the design which we have copied, it will be seen that the artist has kept the notion of continuity steadily in view, so as to hide very cleverly where the processes of reproduction and repetition commence, and to convey the impression that the pattern, to whatever extent carried, has an unbroken and perfect unity. We saw some specimens of paper in which the fact of continuity was disguised by breaking up the pattern to some extent, and baffling the eye by fragments and interruptions; this artifice of design was, however, best shown in a figured silk, an engraving of which is annexed. The use of running pat-

terns in paper-hangings is very forcibly felt when we compare them with panel-patterns. The latter look far best in the piece, and are perhaps the most pleasing when casually examined; but for a room, in which the same parties constantly assemble with the same objects before their eyes, we think that the sameness of the panellings, however well each might be executed, would produce a heavy and very wearisome effect.

The French designers, acting on the principle which we have enunciated and endeavoured to develop in the last paragraph, have laboured very strenuously of late to conquer the effect of reproduction and repetition in their flower-patterns. We take as an example a pattern of a figured silk, in which the idea of con-



tinuity has been very artistically made to predominate over the idea of reproduction. But artists should bear in mind that this disguise is much easier attained in textile fabrics than in a stiff material to cover a flat surface, like paper-hangings; the folds of the drapery give great assistance in hiding the fact of continuity.

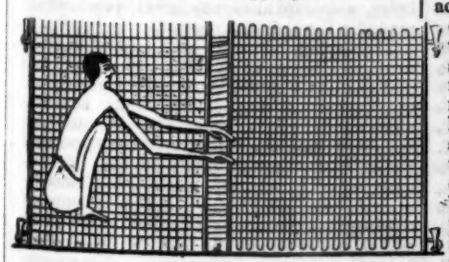
There were a few specimens of paper imitations of fresco-panellings which possessed considerable merit, but we believe that the style to which they belong is not very popular in France. We saw very few arabesques, and none that deserved special notice; and we saw no designs for the decoration of ceilings, a branch of domestic ornament which we are glad to find making great progress in England. Borderings, mouldings, and other minor decorative ornaments were exhibited in great abundance, but they were so crowded upon each other as to defy all possibility of close and minute examination.

Spun glass woven into silk and damask hangings, though known for some time in England, has made less progress as a branch of

decorative manufacture than might have been anticipated from the exquisite beauty of some specimens displayed at various exhibitions in the different parts of England. In France these tissues seem to be as little used as with us for the decoration of private apartments; but, on the other hand, the French, in their revived taste for church ornament, have taken advantage of the gorgeous effects of woven glass, and employed it in hangings for altars, canopies for shrines, and veils for the mysteries of the Host. Pope Gregory XVI. has been so much delighted with the effects of this new form of ecclesiastical decoration, that he has sent medals of honour to the principal persons engaged in the manufacture, and recommended the use of this rich drapery in the canopies employed in the public processions of the Host.

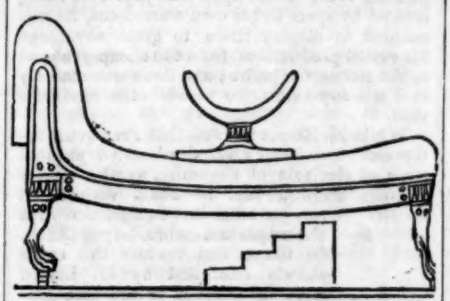
It will be obvious to any person who looks upon the plan of the saloons and galleries of the Exposition, given in the plate at the commencement of this number, that the textile fabrics of France have been the chief objects which guided the Directors of the Exposition, as they most undoubtedly were those which have excited most attention among the French public. Now, these fabrics may be viewed under two very different aspects: first, as evidence of the progress of industrial art; and, secondly, as examples of pattern in design, which might be advantageously imitated by our countrymen. These are so perfectly distinct, that we have resolved to treat them under different heads, and our attention must first be directed to investigate how far the Exposition goes to prove progress in the industrial arts of France.

The gallery of woollen fabrics was the most likely to engage the attention of a visitor as he escaped from the saloon devoted to mechanical inventions, because it had the appearance of of being the coolest, and was certainly the least crowded. The first suggestion which it forced upon the mind was, that the materials suited to waistcoats, trousers, and pantaloons were far more numerous than the specimens of broadcloth; and the second was that tartan or chequered patterns, similar to the Scottish plaids, held an almost undivided sway over the public taste. We have always felt some surprise at the almost universal identification of chequered plaids with the system of clans in Scotland; but we were not a little astonished that the Directors of the Exposition should have fallen into this error, when Murutoli's plates, one of which we copy, gives evident



proof that chequered patterns were known in ancient Egypt, and gave rise to the greatest improvement in the mechanism of weaving—the substitution of the horizontal for the upright loom. It is not at all improbable that the chequers of the plaid may have been not less important in the patriarchal ages than they were in the period during which the Celtic distinctions predominated in Scotland. It may be, and indeed it most probably is, assigned as the cause that the jealousy which the brethren of Joseph felt when their father gave his favourite child "a coat of many colours," arose from their having viewed this coat as a *khelát*, or investiture of honour which conferred upon him certain powers of dignity and pre-eminence in the tribe. Another reason for this belief may be assigned: plain weaving in the upright loom, such as that of which we annex an engraving, was always

made the work of females, and especially of female slaves, among the Hebrews, Egyptians, and Greeks; while the chequered patterns, as we have seen, were intrusted to the care of free male operatives; and it is probable that, from mere association of ideas, a less degree of honour was attributed to the products of the upright than of the horizontal loom. We may take this opportunity of noticing that we observed many unconscious imitations of the ancient Egyptian style of furniture in Paris; and we actually saw a complete copy of the accompanying Pharaonic couch, with its rest



for the head, and steps of ascent, put forward as a specimen of the style of *la Renaissance* in a depôt for fashionable furniture. In the Exposition itself there was a very graceful looking-glass, supported on a single column, with which we felt that we had some previous acquaintance, and on comparing our notes with our own private collection we found that the design was essentially the same as that of the hand-mirrors discovered among the monuments of Egypt. We have been led into this digression by a desire to do justice to the Egyptians, whose incipient efforts in Art have been thrown so far back into the shade by the more brilliant works of their Greek pupils, that people seem almost to forget that there were generations of Pharaohs before the age of Pericles, and that the valley of the Nile was the seat of the Fine Arts long before any attempt was made to clear the forests of Attica.

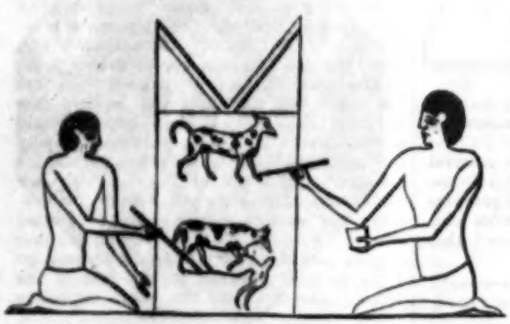
To return from this digression, which in truth would have been more appropriate to other parts of the Exposition than the woollen manufacture, we must say that the exhibition of French broadcloths was a decided failure. The texture, even of the very best set forward, was loose and deficient in that closeness of grain which allows of very short nap. The cloths had a velvety, or rather a velveteen appearance, which would have been decisive of their fate in the Cloth-hall of Leeds; and the price of any of the specimens which promised fair and reasonable wearing was above the cost of similar qualities in England. These unpalatable truths were recognised, though very reluctantly, by the French themselves in their examination of the articles displayed at the Exposition. On the other hand, however, we must confess that in the lighter textures designed for summer wear the English manufactures are decidedly inferior to those displayed in the Exposition, both in adaptation of material to summer wear and in the selection of mixed colours. On comparing the products of woollen manufacture displayed at the present Exposition with those brought forward in former years, the editors of the French papers have generally made a boast of progress; but, on conversing with some of the most eminent manufacturers, and those members of the jury who have paid special attention to this department, we found that they had no wish to confirm a testimonial so flattering to French vanity, and were ready to acknowledge the superiority of the West Riding of Yorkshire.

The plain linens displayed at the Exposition were inferior to those of Belfast and Dundee in quality, and were considerably higher in price; but there was one branch of this department of industry in which we were rather surprised to find that the French manufacturers had stolen a march on their British competitors, before our countrymen were aware that they had begun to pay attention to the subject: we allude to the manufacture of damasked table-cloths, some of which displayed in the Exposition deserved to hold a high place for excellence both of design and execution. We give an engraving of one which struck us as the best

example of the adaptation of style to a special material which we have seen for a long time. Our readers will of course see that, when a design is to be rendered effective on a uniform texture, the pattern can only be brought out by giving such breadth and force to the forms employed as will enable them very easily to catch and throw out light. In the specimen of damasking on linen this was very effectively wrought out, but not by the designer alone, for the weaver had used a weft-thread of much looser texture than the warp, and this of course produced a difference in the reflection and radiation which brought out the pattern with a strength and force that could not be obtained in a more uniform texture. It should, however, be observed that, when too great a difference between warp and weft is made for the purpose of increasing the effect of the damasking decoration, the articles become very like Peter Pindar's razors—"made to sell"—for such artifices greatly diminish the durability of the article. There can, however, be no doubt

that the damasking of linen table-cloths is an artistic form of ornament which deserves more attention than it has hitherto received. The French artists who have taken this branch of design in hand have studied, not merely the possible effects of their patterns, but have gone into the weaving-sheds and factories, for the purpose of testing the effects as they were developed in their practical application. The accompanying engraving exhibits a specimen of a damasked pattern thus developed in the loom-shed, and which in its original conception was quite inapplicable to the fabric for which it was intended.

There are two great errors, of a very opposite kind, to which English designers, and especially those who prepare patterns for textile fabrics, are exposed. One set of instructors advise them to store their minds with the principles of universal taste, and to keep ever before their view that the elements of beauty are few and simple: they say, and with truth, that the human figure, either in casts or in the living model, affords the best study of graceful form and artistic combination, of varying outline tending to unity of design, which can be placed before the youthful student; but, on the other hand, it has been too much the fashion of our designers to set themselves to copy specialties, and hence they fall into the error of the Egyptian artists (a specimen of whose forms of



instruction, in the mystery of servile copying, we cannnot resist the temptation of introducing), and become complete mannerists. Now, we say that the general instruction in drawing and the wide principles of design is necessary to the education of the industrial artist; but we as strenuously insist that a knowledge of the mechanism and manipulation of the materials with which he has to deal are not less necessary, and we should say to those who conduct the education of young designers, in reference to the correction of both errors, "This ought ye to have done, and not left the other undone."

Now, it is quite a mistake to suppose that French designers are trained *solely* in the general principles of Art, irrespective of their special application to the realization of those designs in the varied materials of different industrial pursuits. This is an error into which many English artists have fallen, and which has been sanctioned by the herd of those countless critics on artistic production, whose chief purpose in writing almost seems to be to prove their utter ignorance of the subject that they write about, and in which it must be confessed that they are tolerably successful. Some of these transcendental critics have taken it into their wise heads to assail the specialties of the School of Design, and particularly its recent importation of the best models of taste in the industrial arts from the Parisian Exposition.

The exhibition of shawls was the most splendid part of the Exposition. M. Rosset's imitations of Cashmire, both in fineness of texture and brilliancy of colour, fully equalled the best productions of Asia, and far surpassed them in exquisite and tasteful designs. M. Rosset has for a long time enjoyed almost the entire monopoly of the produce of the Punjáb, having sent an agent to Lahore soon after Runjeet Sing had established his authority in that country. We believe, also, that he went himself to India for the purpose of examining the manipulations employed by the people of Cashmire in weaving and dyeing their beautiful fabrics. His success is unrivalled; and no oriental sovereign could display shawls of more exquisite material and richer colour than those which he displayed. The designs were very varied, but in all cases the patterns were made to harmonize with the size and hue of the shawl. As the space allotted to M. Rosset in the saloons of the Exhibition allowed him to exhibit only a very limited number of specimens of his splendid manufactures, he made an exhibition at his own residence, which was opened to the public every Monday—the Exposition being closed upon that day. Not being limited by space in his own warerooms, he was enabled to display there to great advantage his varied productions, from the cheapest shawl to the richest Cashmire; and there was scarcely in Paris any exhibition which better merited a visit.

While M. Rosset showed that French industry can more than rival the boasted productions of the vale of Cashmire, another manufacturer showed that he could with equal success enter into competition with the crapes and embroidery of China. In tissue and texture the crape shawls exhibited by M. Linard were fully equal to the best productions of the Celestial Empire, and if any difference existed it was decidedly in favour of the French article. His embroideries were as brilliant in colour as any of the oriental manufactures we have seen, while his flowers were far more true to nature. We should also mention that his embroideries have no reverse, but look equally well at both sides. There were some very fine embroidered scarfs exhibited by M. Lignière, and a very creditable display of printed handkerchiefs and cravats from the establishment of M. Bataille. The last-named gentleman is one of the most extensive manufacturers in France, giving constant employment to more than three hundred workmen. It is chiefly owing to the improvements in machinery introduced in his establishment that the price of handkerchiefs and cravats has been diminished by one half in France within the last few years. It may be worth mentioning that this branch of industry affords abundant proof that the progress of mechanical invention, so far from displacing human labour—as is absurdly asserted by those who remain ignorant in spite of experience—actually provides additional employment for the operatives. Before improved machinery was applied to this manufacture, the number of operatives it employed throughout all France did not equal the number of those now engaged in the establishment of M. Bataille alone.

Varnished leather is a branch of industry which, within the last few years, has become very extensive in France, and is abundantly used in the manufacture of boots, shoes, &c. We examined several of the specimens displayed at the Exposition, and found that the leather was now made as pliable as that in the finest gloves. The superiority of the French boots and shoes is indeed unquestionable, and their gloves are for the most part superior to any produced in Britain. The amount of gloves exhibited appeared to us disproportionately large, and we could not find such a difference in their qualities as would justify us in naming any manufacturer as remarkable for superior skill.

Hats must not be passed over without notice, though we agree with the orientals in regarding all the varieties of this article of European dress as equally tasteless and uncomfortable. The varieties of shape exhibited by the French manufacturers were not so numerous as those which may be seen any day in the Strand or Regent-street. The chief novelties were mechanical inventions either for comfort or convenience. Gibus's folding hat was of course assigned a conspicuous place, and several other manufacturers professed to have discovered means of ventilating the interior of the hat so as to prevent the inconveniences which arise from suppressed perspiration.

Fans may be very briefly dismissed, although the exquisite beauty of those displayed by M. Cubanes attracted great crowds of admirers. We were particularly struck with some fans which had been specially ordered for her Majesty the Queen of France and her Royal Highness the Duchess of Orleans. We may remark that all the articles selected by the Duchess of Orleans were conspicuous for their simple elegance, and evinced a refined taste characteristic of an elegant mind. She seems to have established a strong hold on the affections of the French people, for all who noticed her name gave vent to expressions of unaffected sympathy for her unfortunate bereavement, and bestowed a blessing on her son, the present heir to the Crown of France.

In connexion with fans we may notice the tablets and planes of ivory cut by a new and ingenious mechanism, the invention of M. Alessandri, by which ivory plates are obtained of a larger size than any we had before seen. The machine, instead of cutting direct through the elephant's tooth, takes off the slabs in successive layers, and follows all the curves of the natural growth, whether circular, oval, cylindrical, or irregular. This mechanism has the further advantage of avoiding the veins of the ivory, which are always apparent in the sections made by the ordinary method.

The velvets of Lyons have maintained their usual superiority at this Exposition; both the plain and the figured merited the highest commendation. A novel fabric, which bore the name of mosaic tapestry, also attracted our attention from the beauty of its designs and the exquisite richness of its colours. We understood that it was originally a German manufacture, which had only been recently introduced into France as a rival to the Gobelins, and that it received the name of mosaic from being dyed in the raw material. The colours are consequently all but indestructible. We were unable to procure any detailed account of the process of manufacture, but we were informed that the articles produced are sold at a moderate price.

Among the various objects of entertainment provided for ladies we were rather amused to find the apparatus for hatching eggs gravely enumerated. The most approved system of artificial incubation is that invented by M. Bir, whose apparatus will stand on a table, and can easily be removed from one place to another without injury. We learned that many ladies have almost a passion for this ornithological curiosity, so that the hens of France are threatened with an absolute loss of all the honours of maternity. We took the trouble of

ascertaining the prices of these new philosophical toys, and learned that an apparatus for hatching twenty-five eggs, together with a book of instructions, might be had for twenty-five francs, or something less than a pound sterling.

With this strange invention we may, perhaps, associate some very clever calculating machines. It was strange to see what were usually regarded as mental operations accurately performed by combinations of brass and iron; it might suggest some strange speculations respecting the cerebral developments in the heads of some of our celebrated mathematicians. We must turn to the clever satire of M. Huart for a description of the countless varieties of ingenious locks which were exhibited as triumphs of mechanical skill:—

"It is universally agreed upon by the public that too high a price cannot be paid for locks—at least such is the very disinterested opinion given by the locksmiths. Locksmiths and watchmakers are two classes of tradesmen very estimable in every respect but one, which is that, though nothing more than mere locksmiths and watchmakers, they have contracted a habit of sending in bills as long as those of attorneys or apothecaries.

"Should the wheels of your watch be accidentally stopped by a grain of dust, the watchmaker takes up the said watch, peeps into it through a magnifying-glass, puts it to his ear, tries to count the strokes of its ticking, and then, like a physician feeling the pulse of a very sickly patient, shakes his head and says, 'It will be a very troublesome job to set this watch right again; I must keep it for a fortnight at least.' At the end of that time you come to your watch-doctor; but he informs you that his patient is as yet convalescent, and requires longer care before perfect restoration to health. At the end of a month or six weeks you are again allowed to take possession of your precious timekeeper, which has just occupied the worthy watchmaker five seconds in removing the grain of dust. Price of the operation, fifteen or twenty shillings. Listen, friend! A first-rate surgeon would cut off a leg or arm for the same money.

"The locksmith has entirely adopted the system of the watchmaker; and, so soon as the functions of a lock are in the slightest degree deranged, he at once carries it off to his shop and detains it as long as possible, under pretence of a multitude of extraordinary complaints, of which you cannot form any conception; he returns it you with a bill for cataplasms of melted lead and caustics of hot iron, which have only been applied to the patient in his imagination.

"The locksmiths of Paris at the present day have gone far beyond the natural limits of their profession. There are a countless number of clever locks and strong iron safes, which seem every day to become stronger and stronger.

"Formerly persons had keys so large that they could not be got into the widest pocket; now we have keys so small that they go astray in the most tiny reticule that a lady suspends from her finger.

"Formerly our locks secured everything with a bolt; now they allow thieves to bolt off with property, a feat performed in Paris by urchins of five years old, even before they are vaccinated.

"Formerly a good citizen, who had lost the key of his lodgings, and was unwilling to be separated for a night from his wife, had nothing to do but find out the next smith, who with one turn of his picklock opened the door and re-established the proprietor in his dwelling. In these days, should a Parisian lose his little key, he is obliged to break through the wall, and finds it more expeditious to seek the aid of a mason than of a locksmith. The rivalry which arose between too inventive locksmiths, Huret and Fichet, of mechanical memory, has produced wondrous effects at the Exposition this year. All the buildings erected in the Champs Elysées would be scarcely sufficient to contain the myriads of locks, safes, and other analogous contrivances.

"There are displayed, for the perplexity of all visitors to the Museum-Palace of Industry, certain mysterious locks, which will only open at the thirty-seventh turn of the key, and which further require that each turn should be given in some certain inexplicable manner. The key is utterly useless should you happen to forget the mysterious manner in which it is to be used.

"We find also *alphabetical* locks exhibited, corresponding with letters marked on the key; the proprietor can change the combination every day, but to open his door he must name the letters in the indicated order. This is wondrously convenient. For example — a gentleman gets to his door about eleven o'clock at night, in the midst of a perfect deluge of rain, when every drop of the shower is larger than his umbrella; he hunts out his alphabetic key, thrusts it into his alphabetic lock, and says, A Z B X;—the bolt remains as firm as ever.

"'Plague take it!' exclaims the worthy citizen, as a drop of rain falls on his shoulder, sufficiently large to drown half his young family, 'is it possible that A Z B X should not be my combination for to-day? Mercy upon me, I remember it was my combination for yesterday. I took it down in my pocket-book, but forgot to enter the combination for to-day.'

"By mere force of ruminating and scratching his head — an exercise which, as everybody knows, greatly facilitates the movement of the intelligence, and prodigiously adds to the activity of clever and ingenious ideas — the worthy citizen makes a random guess, and supposes the combination to be B C L O. A second drop of rain inundates his other shoulder while he makes trial of the second combination, but in consequence of the same run of ill-luck he has no better success than when he tried before.

"The unhappy man, thus detained outside his dwelling, might remain there all night without hitting on the right combination—the exact number of combinations and permutations being three million four hundred and fifty-three thousand four hundred and seventy-eight, to say nothing of fractions. Accordingly, so soon as he comes to the three-hundredth he loses all patience, and begins to kick and batter at the door, as if he wished to carry the portals by assault as Samson of old did the gates of Gaza; but a patrol of the National Guard happens to pass by at the moment, and our modern Samson, found in the very fact of creating a disturbance in the streets at night, is marched off to the watchhouse by the worthy guardians of the public safety, who in turn for this display of vigilance take good care not to meddle with the thieves who continue to encumber the celebrated *Rue aux Fèves*.

"If from locks we turn to iron safes, we shall find other wonders almost equally prodigious. Our admiration is excited by an enormous safe, which might serve to hold all the gains of an army-contractor, and which is secured by no less than eight locks. Should a robber any fine night try to open it with a skeleton key—pop—a pistol-shot is discharged in his face! It is true, however, that the proprietor runs the hazard of meeting with the same reception whenever he goes to open it to get out half-a-crown.

"Here is another safe, destined to serve as a cash-box in a bank, which has an extraordinary apparatus hidden behind it. So soon as a robber comes and begins to tamper with the lock, the creaking of machinery is heard, and a system of iron work is suddenly thrown over him, and he is trapped in a cage like a real canary-bird.

"There is another safe, which, in addition to the recommendations of an unmanageable lock and prisoning apparatus, has besides a very surprising and whimsical addition, that is to say, a barrel-organ, which, so soon as the robber is caged, proclaims the fact to the proprietor and the whole household, and at the same time consoles the prisoner by recommending him to

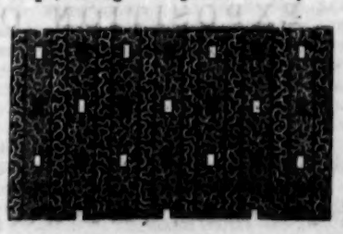
'Turn about, and wheel about, and jump Jim Crow;'

or pleads for him with the owner by squeaking

'Oh, breathe not his name, let it sleep in the shade.'"

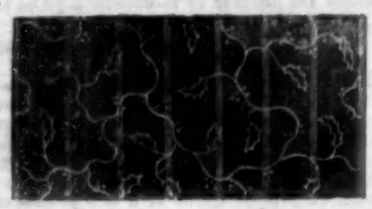
But enough of these ingenious contrivances. Let us turn from iron to copper, and observe that the French have begun to manufacture cylinders for calico-printing, and have made very great progress in this branch of industry. On one of the cylinders, and on several copper-plates, we saw specimens of a new process of etching in relief, invented by M. Remou. The process may be briefly described as one which preserves in relief, by means of some chemical operation, designs drawn by an artist, with a simple blacklead pencil, on a sheet or cylinder of copper, previously prepared by the inventor. The preparation is white, and the design can be as easily traced upon it as upon paper. As we shall have occasion to dwell at great length on the patterns of silk, satin, carpets, &c., purchased from the Exposition for the use of our own School of Design by her Majesty's Government, we shall not here examine them in their artistic relations, but reserve for the second part of our account the criticism of patterns for textile fabrics, as well as of designs in bronze, glass, porcelain, &c. But, as the subject is of importance in an industrial point of view, we shall briefly note the progress made by the French in these branches of manufacture.

The cotton-twist displayed was for the most part of low numbers, but we believe that several mills for fine spinning are in the course of erection. French twist is much dearer than Manchester twists of the same numbers, and is far inferior both in the closeness and evenness of the fibre. Of course the spinners are clamorous for protection, but they are opposed by those who confine themselves to weaving; for the great curse of the protective system is that it moves in a vicious circle, and requires that he who is plundered by one monopoly should be remunerated by having another monopoly established in his favour, so as to give him the privilege of robbing somebody else. In plain cottons and calicoes we find nothing that requires any specific remark; but in printed goods we were much gratified by finding that as much care was bestowed on the preparation of the patterns designed for the use of the working classes as on the most expensive dresses of *mousseline de laine*, cashmire, silk, and satin. The favourite designs for printed cottons were stripes, a style of pattern which will always be popular, on account of the aid it gives in forming for the eye a graceful outline of the figure, and helping to disguise any little tendency to rotundity. The accompanying stripe, though composed of very simple



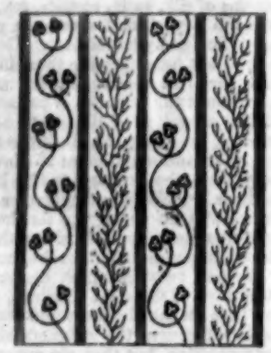
elements, had the appearance of being well covered, and was certainly worthy of much better material than that on which it was printed. It was published in several varieties of colour, to some of which it was obviously

not so well suited as to others: its effect was best in what are termed undecided colours in the main stripes, and rather decided colours in the square spots. We were much more pleased with a very neat combination of the stripe with the running pattern: it was very effective on a semi-transparent texture, such as muslin or *barège*, but did not succeed equally well on



closely-woven cotton or *mousselines de laine*. There were very many patterns in this style, which appeared to be very popular: it is obviously susceptible of a great number of variations, and might, we think, be very judiciously applied to light summer dresses.

A flower pattern, in stripe, attracted our attention, and afforded us so much pleasure that we had it copied. It was far more effective than some very elaborate and complicated designs which were near it. In one or two instances, indeed, we were almost led to suspect that the calico designer had in some instances taken hints from the designer for paper-hangings, for there was an attempt to give broad effects, totally unsuited to articles of dress.



Fancy waistcoatings were chiefly remarkable for plain stripes or plaids being the predominating patterns. The chief materials were mixtures of silk with cotton, flax, or wool. Some of the combinations of silk with linen had a very novel effect, and might, we think, be made the foundation of a very pleasing style in this article of dress.

There were but few plain silks in the Exposition, and the texture of these appeared to us inferior to that of the English silks. On the other hand, the brilliancy of the French colours surpassed anything which we had previously seen, and some of them had quite a dazzling effect. But, beautiful as this brilliancy is in silks of a single colour, it gives rise to harsh and startling contrasts when applied to stripes or chequers. We have already mentioned the prevalence of chequered patterns in the articles designed for the dresses of gentlemen; and the same passion for tartans appeared to have taken possession of the ladies, for we saw as many plaid silks as we should be likely to meet in any of the great cities of Scotland.

In satins a better taste appears to preside than in silks. The colours in most of those to which our attention was directed were subdued and softened down to a pleasing indecision of character, which was quite refreshing after the glare and glitter of the silks. To some of the Jacquard patterns we shall have occasion to direct more particular attention in the continuation of this notice; but we may here notice two styles, which it would be impossible to convey any adequate idea of by means of wood-engraving. One of these gave the effect of the most light and delicate pencil-tracing on a light ground, and was so admirably executed that we several times stopped to admire it as an exquisite specimen of pencil-drawing; indeed we could hardly be persuaded that it was a woven pattern until the person who had it in charge kindly permitted us to examine its texture.

The second style, which pleased us almost equally, gave the effect of flowers as seen through a mist or haze; here, too, we were for a time under an optical illusion, for we imagined that some film of gauze had been laid on the satin. This is certainly a vast improvement on the *Chiné* system of softening patterns, which had such a run some years ago, and which we always regarded as one of the most monstrous abominations that ever received the patronage of fashion. We were sorry to observe some symptoms of a growing taste for portraits and pictures wrought by the Jacquard. The productions, to be sure, are very wonderful, admirably calculated to make one stare with astonishment for a moment, and yawn with weary disgust ever after. This, however, was an exceptional instance; we saw no other specimens of decided bad taste in any of the textile fabrics displayed in the Exposition, but much to prove that, however England surpasses in the mechanical parts of spinning, weaving, and printing, France has a decided superiority in all matters connected with taste and design.

The Exposition contains much of luxury to admire, but its chief excellence consists in comforts to appreciate; it is, in all its essential features, the Exhibition of articles calculated to improve the taste of those who have little leisure for studying the splendid displays of public museums, and still less the means of purchasing articles of *vertù* to decorate their private dwellings. Its gorgeous display contains much to gratify the artistic pride of a nation; but it exhibits in greater abundance that which is more noble, more truly grand, and more really magnificent than the decoration of lordly halls or royal palaces. There is in every part of it an obvious intention to rouse an entire people into the keen perception and proper appreciation of the true constituents of physical and formal beauty. The very clever and cheap specimen of coarse ware which we have copied may be quoted as no unsuccessful

specimen of the efforts made to bring tasteful design within the competence and cognizance of the class of artisans and operatives. Such should ever be the object not only of those who wish to advance the cause of artistic decoration, but of all who are anxious to promote the intellectual and moral advancement of the community. A keen perception of physical beauty greatly facilitates the appreciation of the moral excellence; and the conjoint examination of both furnishes inexhaustible materials of wonder, love, and praise to the Almighty Being who has so wondrously called into existence, and still more wondrously accommodated to each other, the Universe of Matter and the Universe of Mind.

On the 1st of September, will be published, another Part completing the Description

OF THE

EXPOSITION OF THE INDUSTRIAL ARTS OF FRANCE,

IN THE MUSEUM-PALACE,

IN PARIS.

THE purchase of several of the best specimens of the combination of the useful with the industrial Arts from the Exposition, by her Majesty's Government, for the use of the pupils in the School of Design, has induced the Proprietors of the ART-UNION to devote another Supplement to this important Exhibition. It will contain engravings and descriptions of all the articles purchased for the School of Design, and will give a very full account of the glass, bronze, porcelain, &c., of the Exposition, and notices of the most artistic patterns in the various textile fabrics. Official particulars will be given of the arrangement and government of the Museum-Palace; and the means of obtaining a similar Exposition in England will be candidly examined.

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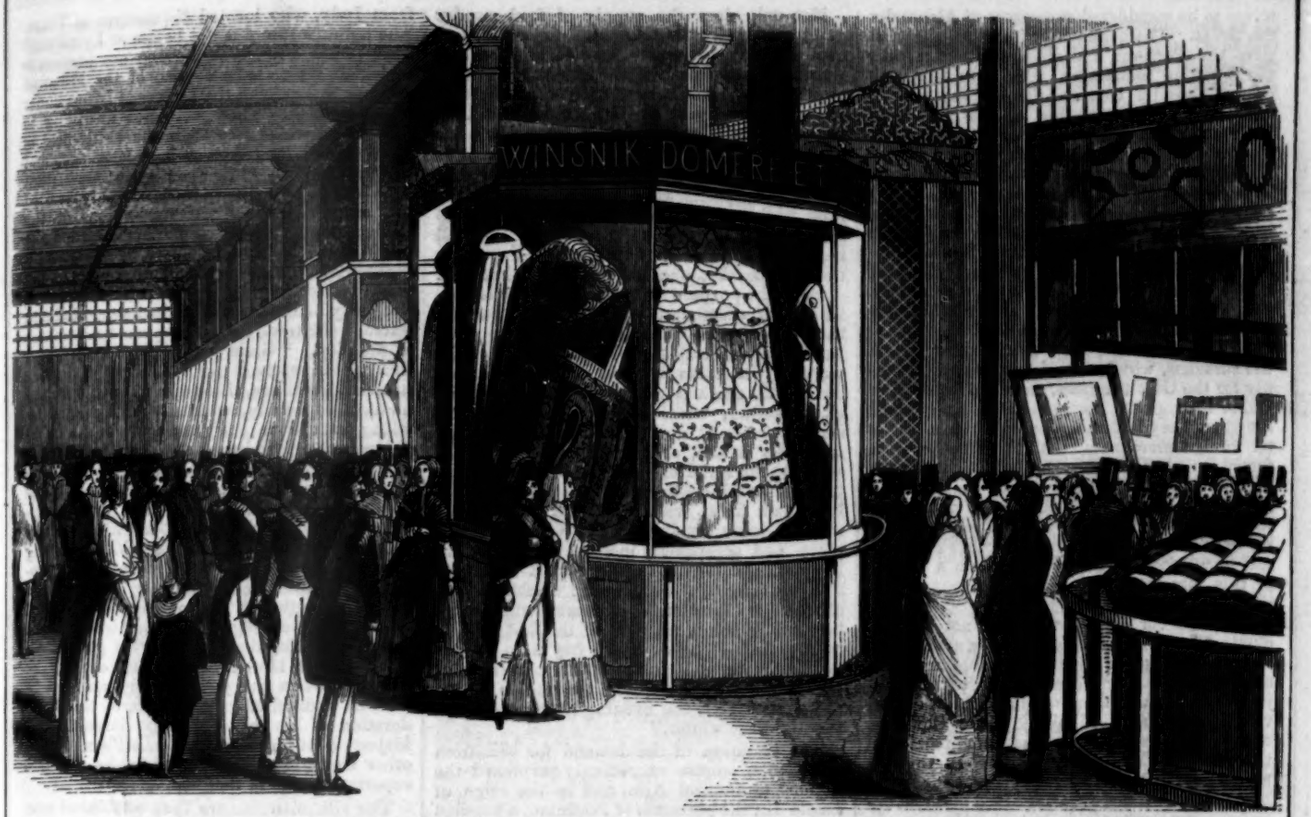

THEIR MAJESTIES THE KING AND QUEEN OF THE FRENCH VISITING THE GALLERIES OF TEXTILE FABRICS IN THE EXPOSITION.

The gallery of the Exposition in which textile fabrics were displayed was in some parts very imperfectly lighted, and hence it is not improbable that many meritorious patterns in silk and cotton may have escaped notice. But this darkness, according to rumour, was not without its use to some of the exhibitors of printed goods, who are said to have heightened the brilliancy of their articles by colouring them with the hand; their artifice was betrayed by the storm which, in the second week of the Exposition, broke several of the windows and gave admission to a flood of rain, which made sad havoc with the deceptive patterns. No such artifices were practised with silk, and hence in laying before our readers some of the French patterns selected by the able Director of the School of Design, at Somerset-house, for the instruction of English designers, we are able to assure them that these are honestly executed, and had none of their effects heightened by any illegitimate artifices.

As the silk manufacture has for nearly four centuries engaged the earnest attention of the French Government, it will be advisable to commence with a slight sketch of its history. We shall begin with some notices of the first silk-weaving practised in Europe.

The island of Cos very early enjoyed a high reputation for its textile fabrics and their excellent purple dyes. In the age of Augustus they were esteemed the most becoming ornaments to ladies anxious to direct attention to their charms. Hence Horace, reproaching Lyce, says,

> "Not Coan purple, nor the blaze
> Of jewels, can restore the days—
> To thee, those days of glory,
> Which wafted on the wings of time,
> E'en from thy birth to beauty's prime,
> Recorded stand in story."—*Book* iv., *Ode* xiii.

From the description which Horace gives of the Coan robes in the second satire of his first book, and from the parallel passages in contemporary poets, we learn that the Coan robe had a great degree of transparency, that it was remarkably fine, that it was chiefly worn by women of light character, that it was usually dyed purple, and sometimes enriched with stripes of gold. It has been supposed to have been made of silk, because, as we learn from Aristotle, silk was at a very early period spun and woven in Cos, and was the chief cause of the high celebrity attained by the manufactures of that island. Hence Tibullus promises his mistress,

> "Since beauty sighs for spoil, for spoil I'll fight!
> In all my plunder Nemesis shall shine.
> Yours be the profit; be the peril mine.
> To deck your heavenly charms the silkworm dies,
> Embroidery labours, and the shuttle flies."—*Eleg.* ii. 6.

In a painting discovered at Pompeii, there is a representation of a lady weaving a tunic of almost perfect transparency, which may probably have been a Coan vest; but, so far as we are enabled to judge from such imperfect evidence, we should believe it to be a thin muslin. Pliny, however, distinctly asserts, that the Coan dresses were made of silk. "The Grecian women," he says, "unravel the silks imported from Asia, and then weave them anew; whence that fine tissue of which frequent mention is made in the Roman poets under the name of *Coan vests*." Salmasius has shown that Pliny in this passage misunderstood the passage of "Aristotle's Natural History" to which he referred. The Greek means nothing more than "females wind off the web of the silkworm, and then weave the threads," not as Pliny would interpret it, "unravel the texture of the dress, and then weave it over again."

Thus we find that silk was known in Europe long before the mode of its production; it was brought by caravans from China, and received its Latin name, *sericum*, from the *Seres*, who are supposed to have been the ancient inhabitants of the Chinese empire. Various erroneous opinions were entertained respecting its origin, and some critics have imagined that Virgil mistook it for cotton when he says,

> "The distant Seres from their trees who cull
> The filmy fleeces of a wondrous wool."—*Georgics*.

But Père du Halde has described a species of silk, of which he first communicated the knowledge to modern nations, quite consistent with the description given by the poet.

The progress of the silk manufacture was greatly impeded by the difficulty of procuring the raw material, which for a long time was exclusively produced in China, and was thence brought by caravans through the perilous deserts of Tartary to the shores of the Caspian Sea, and thence through Persia to the Greek colonies in Asia Minor. Trade was long neglected by the Roman emperors; and it was not until the age of the Antonines that the Romans began to pay any attention to the vast commercial resources which were opened to them by the possession of Alexandria. When, however, their attention was directed to the subject, they appear to have sedulously endeavoured to improve their advantages.

Chinese histories inform us, that an ambassador from one of the Antonines came to their remote country for the purpose of concluding a commercial treaty; and this is rendered highly probable by the fact that Oriental commodities became both plentiful and cheap under and after their dynasty. Ammianus Marcellinus informs us, that in his age (A.D. 370) silk was generally worn even by the lower classes.

After the restoration of a native dynasty in Persia under the Sassanides, and the establishment of the Eastern empire at Constantinople, a long series of wars ensued between the Persian sovereigns, who deemed themselves legitimate inheritors of the power of Cyrus, and the Byzantine emperors, who wished them-

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selves to be considered successors of Alexander the Great. The command of the sea of Oman gave the Persians a decided advantage over the Egyptian merchants, who were forced to import Oriental commodities by the tedious and dangerous navigation of the Red Sea. Until the introduction of steam navigation the Red Sea, or *Yam Suph*,* as it is called by the Orientals, was universally dreaded by voyagers. The strait at its entrance was significantly named by the Arabs *Bab-el-Mandeb*, or, "the gate of tears;" and it was a common proverb with Eastern sailors, "Yam Suph is a double-locked sea. There are six months in the year that you cannot get into it, and six more that you cannot get out of it." But the Persians were not satisfied with this natural superiority. Having it in their power to molest or cut off the caravans, which, in order to procure a supply for the Greek empire, travelled by land to China through the northern provinces of their kingdom, they laid such onerous transit duties on foreign merchants, that the Greeks were forced to abandon this branch of commerce and purchase their silk from the Persians and Sogdians. These, with the usual rapacity of monopolists, raised the price of silk to such an exorbitant height, that the Greek manufacturers, whose looms depended on a supply of this raw material, were thrown out of employment, and nearly ruined.

The Emperor Justinian, eager, not only to obtain a full and certain supply of a commodity which was become of indispensable use, but solicitous to deliver the commerce of his subjects from the exactions of his enemies, endeavoured, by means of his ally the Christian monarch of Abyssinia, to wrest some portion of the silk trade from the Persians. In this attempt he failed; but when he least expected it he, by an unforeseen event, attained his great object of procuring his subjects an abundant supply of silk, independent both of ships and caravans.

Two Persian monks, having been employed as Christian missionaries by some of the churches which had been established in India, pursued their evangelical labours until they had penetrated into the remote country of the Seres, or Chinese. (A.D. 551.) There they observed the labours of the silkworm, the mode in which these animals were fed on the mulberry-leaf; the care bestowed on them in the several periods of insect transformation, and the attention necessary to obtaining perfect cocoons. Without such knowledge the mere possession of the insects would have been useless; for the time that elapses while the silk-caterpillar is undergoing its changes varies according to the temperature and the quantity of nourishment with which it is supplied; the health also of the insect and the subsequent perfection of the silk depend upon the mode in which these changes are made, and the intervals between the successive moultings of the skin, which take place before the animal attains its full growth. The Chinese calculate that the same number of insects which would, if they had attained the full size in twenty-three or twenty-four days, produce twenty-five ounces of silk, would produce only twenty ounces if their growth occupied twenty-eight days, and only ten ounces if forty days. In order, therefore, to accelerate their growth, they supply the insects with fresh food every half-hour during the first day of their existence, and then gradually reduce the number of meals as the worms grow older. It deserves to be remarked as an unnoticed fact in natural theology, that the substance on which this valuable caterpillar feeds is the leaf of the mulberry-tree; and Providence, as if to ensure the continuance of this useful species, has so ordained it, that no other insect will partake of the same food; thus ensuring a certain supply for the little spinster.

* That is, "The Sea of Weeds."

Not only does the supply of food require great care and attention, but numerous precautions are necessary to keep them clean and warm. Some notion of the extent of the care required may be formed from the following extract from a very ancient Chinese work on the culture of silk:—

"The place where their habitation is built must be retired, free from noisome smells, cattle, and all noises; a noisome smell, or the least fright, makes great impressions upon so tender a breed; even the barking of dogs and the crowing of cocks are capable of putting them in disorder, when they are newly hatched.

"For the purpose of paying them every attention an affectionate mother is provided for the worms, who is careful to supply their wants; she is called *Tsan-mou*, mother of the worms. She takes possession of the chamber, but not till she has washed herself and put on clean clothes, which have not the least ill smell; she must not have eaten anything immediately before, or have handled any wild succory, the smell of which is very prejudicial to these tender creatures; she must be clothed in a plain habit, without any lining, that she may be more sensible of the warmth of the place, and accordingly increase or lessen the fire, but she must carefully avoid making a smoke or raising a dust, which would be very offensive to these tender creatures, which must be carefully humoured before the first time of casting their slough. Every day is to them a year, and has, in a manner, the four seasons; the morning is the spring, the middle of the day the summer, the evening the autumn, and the night the winter."

The cessation of the demand for silk from the Roman empire exceedingly perplexed the nations of Central Asia, and in the reign of Justin II., the successor of Justinian, a Sogdian embassy was sent to Constantinople for the purpose of renewing and extending ancient commercial treaties. To their surprise and dismay, they found that the culture of silk had made such progress as to render Constantinople quite independent of foreign supplies; and they were forced to confess that the Byzantines, or, as they called them, the Romans, were not inferior to the natives of China either in the management of the insects, or the manufacture of the silk.

Greece, but more especially the Peloponnesus, continued for several centuries to be the great silk-farm of Europe; indeed, it was from the abundance and excellence of its mulberry-trees that the southern peninsula of Greece received the name of the Morea. Silk-weaving was carried to a pitch of excellence unknown before in the looms of Thebes, Corinth, and Argos; an enlightened government alone was wanting to restore the pristine splendour of these celebrated cities. But in the year 1147, Roger, one of the Norman pirates who founded dynasties in the south, after acquiring the kingdom of Sicily, began to sweep the shores of the Mediterranean with his corsairs. Greece, helpless from the demoralization of its inhabitants, and left defenceless by a government, which simply to call feeble would be sadly to overrate its strength, was a tempting prey to the plundering Normans. Roger sacked Corinth, Athens, and Thebes, carrying off vast numbers of the inhabitants captive to Palermo; the captives could support themselves in a foreign land only by attending to their accustomed branch of industry; and thus, by their means, the culture of the worm and the manufacture of silk were introduced into Sicily. From this island the art spread into Italy; and Venice, Milan, Florence, Genoa, Lucca, &c., were soon distinguished for their success in raising silkworms, and for the extent and beauty of their manufactures of silk.

In 1480 the silk manufacture was established in France, Louis XI. having invited workmen from Italy, who located themselves at Tours. The manufacture was not begun at Lyons until 1520, when Francis I., having got possession of Milan, prevailed on some of the Milanese artisans to establish themselves at Lyons under his protection. They were not unwilling to quit Italy, which was then the battle-field of Europe, as Flanders was in a later age, and they profited by their security so much, that the silks of Lyons very soon not only rivalled but surpassed the finest productions of the Italian loom. Nearly at the same period the rearing of silkworms began to be successfully prosecuted in Provence, and other parts of the south of France. Henry IV. rewarded such of the early manufacturers as had supported and pursued the trade for twelve years with patents of nobility. "Great part of the letters," says Sully, "I received from this prince turned upon his buildings, those of his new silk manufactures especially, which he still carried on with great ardour; his greenhouse in the Tuileries was the place he set apart for breeding the silkworms, the eggs having been sent him from Spain, and he hastened the building of it for that purpose. I laid, by his order, the foundations of the new edifices for his tapestry-weavers, in the horse-market, which requiring a larger extent of ground than could be procured, without encroaching a little upon a garden belonging to Montmagny, who opposed it strongly, the King ordered that he should be paid the sum he demanded for his ground, representing to him, however, that on such an occasion, when the public utility was in question, an individual ought to waive the consideration of his own particular interest. His Majesty sent for Comans and La Planché from other countries, and gave them the care and superintendence of these manufactures."

The silk manufacture thus established soon acquired a wide and flourishing extension; but a severe blow was inflicted upon its prosperity by the bigotry of Louis XIV. A very large number of the silk-weavers of France had embraced the Protestant doctrines, or the principles of the Huguenots, as they were then termed; the iniquitous revocation of the Edict of Nantes compelled these men to abandon their country; they took with them their skill, their industry, and their ingenuity to England, Holland, and Northern Germany, where they established factories which soon became formidable rivals to those of France. The silk-weavers who remained in France were viewed with great suspicion by the court and clergy, for in almost every age and country the great strength of dissent is found among the manufacturing classes. Silk-weaving, to a great extent, continued stationary in France, while in England it attracted but little notice, where mechanical invention was with wondrous strides advancing the manufacture of cotton. The horrors perpetrated by the Jacobins at Lyons in the early part of the French Revolution seriously injured the silk trade of France; but at this crisis a new and unexpected career of prosperity was opened to it by an invention which produced a greater revolution in silk-weaving than even the power-loom in the manufacture of cottons. The author of this invention was M. Jacquard, and the following interesting particulars respecting him are taken from Dr. Bowring's Evidence before the House of Commons' Committee on the Silk Trade; they were communicated to Dr. Bowring by Jacquard himself:—

"He was originally a manufacturer of straw hats at Lyons, and it was not until the peace of Amiens that his attention was first attracted to the subject of mechanism. The communication between England and France being then open, an English newspaper fell into his hands. In this he met a paragraph stating that a premium would be awarded by a society in this country to any person who should weave a

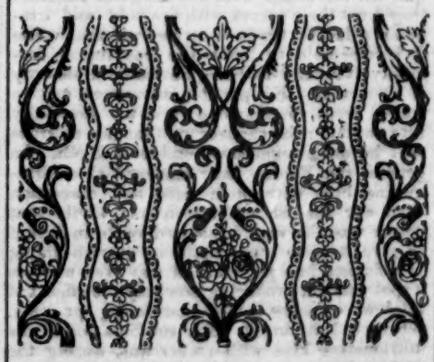
net by machinery. The perusal of this extract awakened his latent mechanical powers, and induced him to turn his thoughts to the discovery of the required contrivance. He succeeded, and produced a net woven by machinery of his own invention. It seems, however, that the pleasure of success was the only reward which he coveted, for, as soon as accomplished, he became indifferent to the work of his ingenuity—threw it aside for some time, and subsequently gave it to a friend as a matter in which he no longer took any interest. The net was by some means at length exhibited to some persons in authority, and by them sent to Paris. After a period had elapsed, in which M. Jacquard declares that he had entirely forgotten his production, he was sent for by the Prefect of Lyons, who asked him if he had not directed his attention to the making of nets by machinery. He did not immediately recollect the circumstance to which the prefect alluded; the net was, however, produced, and this recalled the fact to his mind. The prefect then rather peremptorily desired him to produce the machine by which this result had been effected. M. Jacquard asked three weeks for its completion, at the end of which time he brought his invention to the prefect, and, directing him to strike some part of the machine with his foot, a knot was added to the net. The ingenious contrivance was sent to Paris, and an order was thence despatched for the arrest of the inventor.

"Under Napoleon's arbitrary Government even the desire for the diffusion of improvements was evinced in a most unconciliatory manner; and while inventions in the useful arts were sufficiently prized, no respect was paid to those persons by whom they were originated. Accordingly, M. Jacquard found himself under the keeping of a gens-d'arme, by whom he was to be conducted to Paris in all haste, so that he was not permitted even to go home to provide himself with the requisites for his sudden journey. When arrived in Paris he was required to produce his machine at the Conservatory of Arts, and submit it to the examination of inspectors. After this ordeal he was introduced to Bonaparte and to Carnot, the latter of whom said to him, with a look of incredulity—'Are you the man who pretends to this impossibility—who professes to tie a knot in a stretched string?' In answer to this inquiry the machine was produced and its operation exhibited and explained. Thus strangely was M. Jacquard's first mechanical experiment brought into notice and patronised. He was afterwards required to examine a loom on which from twenty to thirty thousand francs had been expended, and which was employed in the production of articles for the use of Bonaparte. M. Jacquard offered to effect the same object by a simple machine, instead of the complicated one by which the work was sought to be performed; and, improving on a model of Vaucanson, produced the mechanism which bears his name. A pension of a thousand crowns was granted to him by the Government as a reward for his discoveries, and he returned to Lyons, his native town. So violent, however, was the opposition made to the introduction of his loom, and so great was the enmity he excited in consequence of his invention, that three times he with the greatest difficulty escaped with his life. The *Conseil des Prud' hommes*, who are appointed to watch over the interests of the Lyonese trade, broke up his machine in the public *place*; 'the iron (to use his own expression) was sold for iron—the wood for wood, and he, its inventor, was delivered over to universal ignominy.' The ignorance and prejudice which caused the silk-weavers of Lyons to destroy a means of assistance to their labours, capable of being made a source of great benefit to themselves, was not dispelled till the French began to feel the effects of foreign competition in their silk manufacture. They were then forced to adopt the Jacquard loom, which led to such great improvement in their silk-weaving; and this machine is now extensively employed through the whole of the silk manufacturing districts of France as well as of England."

Many important improvements have been made in the Jacquard loom within the last ten years, some of which have greatly enlarged the mechanical facilities for weaving complicated patterns, while others tend to secure a perfect realization of the design. In the latter of these objects such success has been obtained, that portraits can be copied in the loom with so much accuracy as to rival line engravings. We saw several in the French Exposition which it was scarcely possible to believe had been woven until they were closely examined, and we have had recently an opportunity of inspecting similar designs of equal merit, the produce of English looms.

The lustrous nature of silk is always taken into account by the French designers when preparing patterns for the Jacquard loom. Brilliancy of material is injurious to very small patterns, which are very likely to be lost in the general light reflected from the entire surface. It is this mirror-like effect of silk which renders plain silks so popular, and the same circumstance has led to the extensive use of shot silks, which produce rich effects by the different reflective power of the colours that compose them. Flower patterns are not very effective in silk, because the lustrous ground gives out too much light, and thus throws an unnatural glare upon the object; but this is avoided when the flowers are raised above the surface, as in the old worked satins and embroidered silks. The raised patterns, however, are very rarely exhibited on the whole silks or satins, but they are frequently produced in poplin, because the woollen shot in this material affords great mechanical facilities for giving inequality of surface as well as for artistic management of light and shade. And here we may take an opportunity of noting that the French poplins are decidedly inferior to those of Ireland, both in brilliancy of colour and richness of effect, but their designs are neither so artistic, nor so studiously adapted to the material. It appeared to us that in all worsted work the French were below the average both of the English and the Germans.

It is not necessary to enter into the history of the circumstances that led to the introduction of the silk trade into England, or to investigate the political causes which have tended either to check or to facilitate its progress; it is sufficient to say that in all the mechanical parts of the manufacture, including strength of material and richness of texture, the English productions are fully equal to the best foreign articles, and only fail in tastefulness of design.



We take as our first specimen of the articles selected by Mr. Wilson for the instruction of his pupils in the Government School of Design at Somerset-house, a striped pattern, which is applicable to a wide range of materials, and would tell well in silk, furniture-calico, or paper-hangings. Its effect is principally produced by the harmonizing of all its curves; the adaptation is at once perceptible to a mathematical eye, but even the untrained observer will see that the outlines of the details have a certain unison and conformity to each other, and that the smaller figures suggest no idea inconsistent with the larger. Much ingenuity has been shown in getting over the formality of straight lines, which must, nevertheless, be regarded as the essential basis of all striped patterns; the slight curvature of the chain enclosing the columnar flowers relieves the stiffness which belongs to all rectilinear delineation, and the columnar flowers themselves have a studied irregularity which prevents the glance from running up and down in the perpendicular direction, which is one of the most painful results of the ordinary striped patterns. Stripes are such an aid to the display of the natural figure that they will be always more or less in fashion, and it is, therefore, desirable to pay attention to the principles by which they may be modified into new and graceful varieties of design. This is, however, a question of much more importance in calico-printing and calico wares than in silks, for the latter, from the richness of the materials and the effect of light on a glossy surface, will bear a much more simple and rectilinear pattern gracefully than cotton or even muslin. Before entering on the subject of the patterns peculiar to silk, we may here introduce the observations we have to make on the French calicoes, to prevent the necessity of our returning again to the subject of striped patterns.

In the specimens of calico-printing given in the preceding number we referred to the great advance that has been made in this art since cylindrical printing has been introduced. It may be necessary to tell our readers that by Perkins's process for the transfer of patterns the power of multiplying any pattern or part of a pattern has been increased to an indefinite extent.

The patterns were originally engraved on the copper cylinder by the hand; they are now transferred to it by mechanical pressure from a small steel cylinder, similar in principle to the invention which Mr. Perkins devised for multiplying the plates of bank-notes.* The pattern, having been drawn so as to fit the circumference of the copper, is engraved on a cylinder of softened steel about four inches in length and one in diameter. The steel is then tempered, and pressed against a second cylinder of softened steel, to which, of course, the lines of the pattern are transferred in relief. This again is tempered or hardened; after which it is applied to the copper cylinder, on which it impresses even the most delicate lines of the pattern as finely and accurately as if they had been cut by the graver.

Another process is frequently employed, which may be called "etching":—The copper cylinder is covered with a thin coat of varnish, such as is used in the ordinary etching, and on this the pattern is drawn with a diamond-pointed tracer. The cylinder is then immersed in aquafortis, and of course the parts from which the varnish has been removed by the tracer are corroded or engraved. The most wondrous part remains to be told; the diamond tracer is generally applied by a process similar to the eccentric chuck of a lathe, and thus the entire surface of the cylinder is covered with patterns, or groundwork of patterns, without any exercise of human skill or ingenuity.

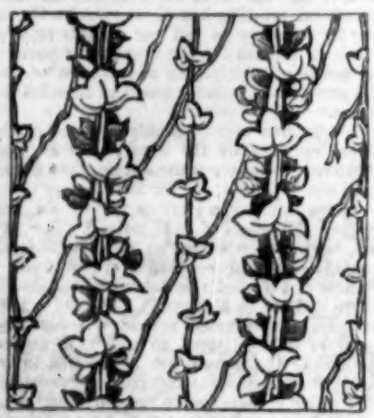
The eccentric designs, as the patterns thus

* It is often very difficult to determine the claims of a disputed invention. It is, however, certain that Mr. Joseph Lockett, of Manchester, practised this process in 1808, before Mr. Perkins had come from America to settle in London; and he brought it, almost unaided, to the high degree of perfection which it has now attained.

produced are called, from the eccentric chuck employed in the process, admit of incalculable varieties of form, and some of them are exquisitely beautiful. Nothing in machinery is more calculated to impress a visitor with feelings of wonder and admiration than a visit to a manufactory where cylinders are etched: the patterns produced by the eccentrics appear to rival the finished labours of an accomplished artist; while the apparent simplicity of the means is so disproportionate to the complicated results produced, that a stranger is almost tempted to doubt the evidence of his senses.

When the cylinders are thus covered with groundwork, an additional pattern may be engraved upon them either by the hand or the steel cylinder. In consequence of these obvious advantages, cylinders eccentrically engraved are largely exported from Manchester both to the Continent and North America. The Prussians and Germans send their own designs to be engraved on the cylinders, having previously selected the groundwork; and this is frequently done by the manufacturers of France. Indeed, we believe that there is only one establishment in France for engraving and etching the cylinders used in cotton-printing, and this is not very extensive. In directing attention, therefore, to the designs of the calicoes selected for the instruction of the pupils in our own School of Design, we think that the ingenuity of Englishmen must come in for some share of the praise merited by the precision of their mechanical execution.

Stripes and all other running patterns are so much more readily and cheaply printed by the cylinder than by the hand, that we may very reasonably expect to find block-printing entirely discarded in this branch of the art.

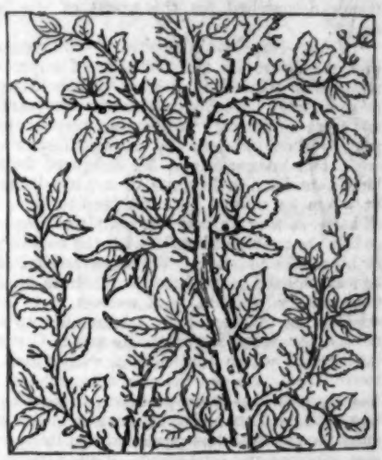


We give here a specimen of a very successful pattern in striped calico. The main design belongs to what is sometimes called the columnar flower pattern, but is further combined with a very pleasing imitation of the natural growth of climbing plants. We have, indeed, in almost all branches of Art, found the French extremely successful in the introduction of the parasitical flowering and fruitage. Their artists are unrivalled in the management of the vine, the woodbine, the jessamine, the parasitical roses, the convolvulus, and similar productions of the vegetable world. We believe that the artists are accustomed to study them as they grow, for they thus obtain from the plants themselves suggestions of natural and graceful arrangement which mere fancy could never have afforded. There is a very pleasing rusticity in the design, which is at once suggestive of natural beauty, and which at the same time leaves nothing unsatisfied in the requisites for completeness either of expression or impression. The rectilinear formality is, in this instance, broken by the transverse lines; to the introduction of such a contrivance there are few who would not have objected *a priori*; and though in this pattern they have been used with considerable effect and success, yet the more we examine it the more we are convinced that the experiment was very hazardous. No one, however, can expect success who will not very often risk failure; and, in this instance the success has been complete, even though the danger was most imminent. From a close analysis of the pattern it would seem that the artist had been himself a little alarmed at the probable effect of diagonal interruptions to a perpendicular or columnar pattern, for there is something like an appearance of an after-thought in the contrivance by which the angles at the points of decussation are broken, and in some degree hidden, by the rustic appearance of the stem and the flowers at the points of intersection. We look upon it, however, after all, rather as a specimen of successful daring than as an example to be proposed for imitation. The

colours both of this pattern and of that to which we are about to direct attention are deserving of notice. The ground is a very decided ultramarine blue, and the pattern is in a very powerful amber. It is a very suggestive exercise of the young designer's taste to compare the effect of these colours in the first pattern, and in that of so very different a character to which we have next to direct attention. It must, however, be noted that the shaded stripe in the second pattern is a deep black. The second pattern is evidently a design of the columnar-flower class; and here the awkwardness of the straight line is very slightly disguised by gentle curvatures in the stripe. Patterns of this kind are very common in English dresses; but in general our designers rarely quit the rectilinear with anything like success: they treat their curves with too bold and irregular a hand; for in a striped pattern, while it is desirable to hide the rectilinear formality, it is far from being advisable to destroy it altogether. No possible advantage can be gained from running one style too decidedly into another; the chances are that the mixture will be an incongruous jumble of both. In general the French have managed the ultramarine blue with more taste and discretion than our English calico-printers; while that colour was the rage it seemed quite sufficient to give it some conspicuous or overwhelming prominence in a pattern. It was even used as a spot pattern, producing precisely the effect of mildew, or some other maculating process, wherever it occurred. The combination of the ultramarine blue with amber was, during the last season, very popular in France; and we incline to think that it will not very soon cease to be fashionable. Some English imitators substituted for the amber a most glaring and offensive orange: slight as was the change, it sufficed to derange the whole harmony of the pattern.

Chequered and plaided patterns are supposed by some to have been derived from stripes; but, in fact, the plaids are much the older invention, having been derived from the effect produced by interlacing strips of bark, which was probably the first form of textile fabric. Some unsuccessful efforts were made by the French designers to found plaids or chequers of rustic patterns on this supposed origin of the style, but the patterns produced were sadly deficient in character and decision. If plaids and chequers were a good style, which we more than doubt, it would perhaps be worth while to work out this idea; as yet it has been developed by the designers too imperfectly to allow of any positive decision being pronounced. Some artists made the still more strange error of aiming at chequered patterns in which the angles of decussation should be hidden. It is perfectly obvious that this could only be done by treating a plaid-ground as a species of lattice-work against which small flowering plants might be trained. This, however, was not attempted; and indeed, should it be attempted, we have very considerable doubts of its success.

We shall now turn our attention to a calico pattern of a very different kind, which deserves to be noticed for the very artistic style in which the drawing is executed. The ground is russet

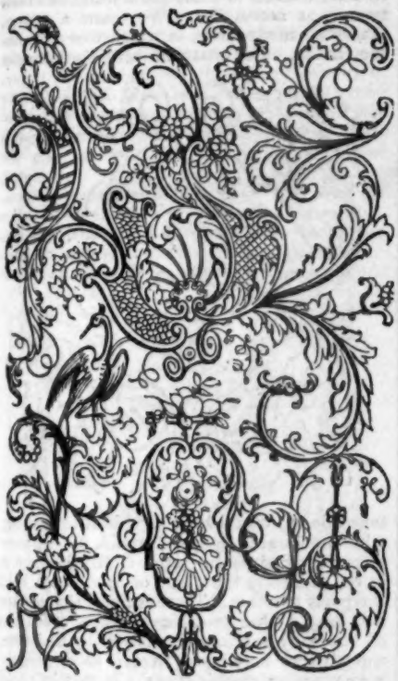


colour, of a peculiarly delicate shade; the branches are of a clear natural brown, and the leaves are of a bright but finely toned green. Altogether the management of the colour in this pattern displays exquisite taste and sound judgment; we doubt whether there was any other in the Exposition which so well merited the honour of being selected for the instruction of English designers. We earnestly recommend those who feel interested in the subject to visit Somerset-house and examine this pattern for themselves; we especially direct their attention to the skill with which the colours are harmonized, and particularly to the art displayed in toning down the bright green of the foliage. It may be remarked that this style of pattern was originally English, and was rather fashionable in the days of Raymond, Kilburn, and Edwards, who may be regarded as "the old masters" of the English School of Design in calico-printing. In the revolutions of fashion it is far from being improbable that this style may recover its former supremacy; and, if so, we much doubt whether the pattern to which we have directed attention will be exceeded.

We must here take the opportunity of noticing once more the attention paid by the French artists to the correct drawing of plants and flowers in their natural positions. They seek them where they grow, whether in field or garden, and rarely take sketches from cut

specimens. This is one reason for their superiority over English designers. Nature has many delicate and indescribable harmonies, which are dislocated and disturbed by any rude interference; and certainly no interference can be greater than that which dislocates the branch or flower from the source of its life, and makes this a preparation for depicting it in its living aspect. As well might we expect that the portrait of a beautiful woman could be painted from her head after she had been guillotined.

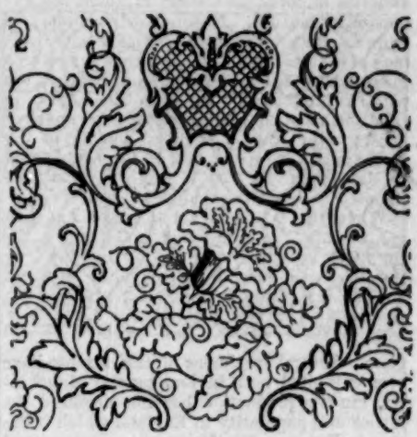
We commence our examination of the selected silk patterns with one which unites in itself the merits of striking originality, great inventive power, peculiar skill in adaptation,



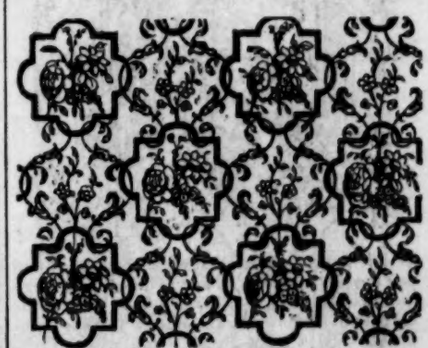
and the most perfect success. In general the patterns of textile fabrics, and more especially those of the French school, are the same on each side of a line drawn through the centre; and in nearly all previous departures from this rule it was found that the deviation led into a complication of forms so as to render it difficult to find a point of view under which the pattern, when contemplated, would exhibit unity and totality of design. It must farther be remarked, that artists have very often confounded unity with totality and totality with unity; but they are quite different things, for a fragment or broken design would have unity or oneness if its component parts were consistent with each other, while it would obviously want completeness; and, on the other hand, a whole might be made up of heterogeneous parts, and would, therefore, be obviously deficient in unity. In the example before us the unity of the pattern results from its being to a very considerable extent evolved from a central mass, to which it returns back and terminates in a graceful cluster of flowers very near the point at which it had commenced. This evolution of pattern is an entire novelty, and, like Columbus's egg, we feel astonished that it has never before been tried by artists; for the contrary process, or involution of pattern, is common enough, and in fact is found more or less prevalent in all complicated designs. The obvious difficulty in this style of pattern is so to signalize the point of evolution as to enable the eye to work out the design for itself without fatigue or difficulty, and at the same time to avoid anything like the affectation of trick or mystery. No two styles are more inconsistent than the artificial and the artistic, and no two are more frequently confounded together both by the uninstructed and by some perverse classes of the instructed. It requires great skill in the evolution of pattern to avoid complication in the main design, and yet if it be simple it will be necessary to introduce accessories, which have always a tendency to destroy both unity and completeness. Both difficulties have been met and conquered in the design before us. The main design, though sufficiently complex, is very easily seized when once the eye has found the true point of starting or departure; and the accessories are held in such due and complete subordination, that one cannot easily discover how any of them could be dispensed with. Even the bird, which is certainly the most obvious introduction, has by its position and posture a direct reference to the original conception. Patterns in this style would tell with great effect in damasks, and in any material where the design would exhibit a bright gloss on a dark ground; but they would be very ineffective except a strong contrast could be obtained between the pattern and the ground. In our last part we gave an engraving of steel inlaid with gold, in which the pattern was to some extent evolved like that before us; but in the steel pattern the point of departure was not so strictly fixed, and, indeed, need not have been, for the damasked steel was an unit in itself, while the silk pattern has to be repeated over a large extent of surface. The ground in this design is straw colour, but the pattern contains a great variety of colours, all of which tend to increase its distinctness.

The next pattern to which we have to direct attention, is in a more simple but scarcely less effective style. The ground is a rich blue, and the whole of the pattern is a bright gold colour.

In the design the most remarkable merit is, the judicious management and subordination of the accesssories. It is a common error to superadd flowers to fanciful forms, without taking care to adapt the spirals of the flowers to the curvature of the forms. The artist in this instance has very cleverly harmonized the one with the other. The next pattern (see next col.) is, perhaps, more effective than artistic, and, perhaps, owes not a little of its success to the beauty of its colours. The ground is of lilac, the ornaments are of a rich amber colour, and the flower is a bright blue. The flower must here be regarded as an accessory; and as such it is disproportionately large, and is likely to excite more attention than the main design. This disadvantage is, indeed, to some extent obviated by giving it a more subdued hue; and certainly when viewed in the piece is as striking an example of tricoloured silk as has been brought under our notice. It is interesting to compare its effects in outline with the one before it, the forms predominating in the one, and the flowers in the other. Every one will see that the latter pattern is the more dependent for its effects on colour. The former would tell in a damask, and is sufficiently effective with two colours. The latter would not do at all if displayed with mere variety of

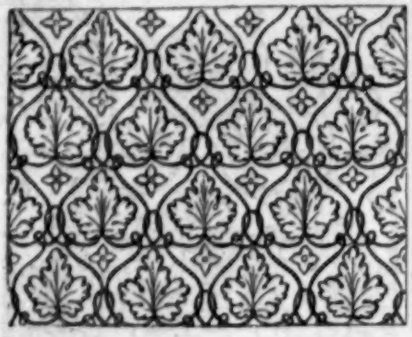


shading, and would be very heavy and ungraceful if displayed in a bicolour pattern. It appears probable that the tricolour design might prove effective if the ground colour were dark, and the forms and flowers given in some of the light brilliant hues; we have seen a design in this style on some Irish poplins, which were exceedingly rich and graceful. Indeed we should recommend artists to copy these, and several of the other patterns we have given with varieties of colour, because they will thus learn how to render their management of colour subservient to the illustration of their drawing and the development of their design. It is too common with manufacturers to look upon designs merely as vehicles for displaying the richness and variety of their dyes, when in fact the colours should rather be deemed the subordinate means by which the design is brought into view, and placed under the immediate cognizance of a spectator. We give a pattern of remarkable beauty in its colours, but in which the colours all tend to the effective illustration of the design. The ground



is a deep crimson, with the tesselated divisions in clear black, the flowers being all given in their natural colours. Nothing can be more effective than the display of the tesselated divisions, although they are sufficiently subdued to prevent interference with the beauty of the flowers. This, however, is a pattern capable of many pleasing variations of colour; a light ground, for instance, with the tesselated divisions marked out by an imitation of pencilling, would no doubt be very brilliant and very beautiful. In this pattern we must also notice the harmony of its composition. The tesselating is of course predominant in fixing the character of the style, which, however, is not one that we very much admire; but this predominance is very gracefully relieved by the mode in which the interstices are occupied.

The last textile pattern to which we desire to direct attention is woven of silk and spun



glass. Several specimens of this texture have been exhibited both in London and Manchester, but the production has not acquired the favour and popularity in England which it has won in France. We do not quite comprehend the cause of this difference in the appreciation of a beautiful novelty by the people of the two countries, particularly as some of the specimens produced in Manchester were, both in design and execution, fully equal to the finest that were displayed at the Parisian Exhibition. Indeed we were shown two pieces of this texture by Mr. Lewis Schwabè, designed for window hanging, which nothing that we saw in Paris could at all compete with. The specimen we have copied in our engraving is of a deep maroon colour, on which the leaves are raised of bright pure glass in moderate relief.

Having already discussed at considerable length the general subject of paper-hangings, we need not, on the present occasion, examine the principles involved in the use of this species of domestic ornament. The French artists, for the most part, have taken tapestry as the origin of paper-hangings, and have, therefore, produced patterns which, in their style, have a very close affinity to the designs employed for textile fabrics. The first which we take is a

wall paper, having a stone-colour ground, and a pattern of crimson cut up with white. The design is a little complex, and its unity is not apparent at the first glance; this defect, which is usual in the styles of Louis XIV. and Louis XV., is, however, very soon got over, for there is a training exercised by the central form which soon leads the eye to those parts which give the outline of the conception. When the design is once conceived, and understood in its general purport, the details are found to unfold themselves very harmoniously, and the accessories, which in this instance are very subdued, will be found to blend themselves easily with the general effect. Some artists have objected to this design as involving too much of repetition; but in this judgment we cannot concur, because so much complication, if attended with perfect dissonance of form in the component parts, would certainly produce a very confused and imperfect result. It must be remembered that paper-hangings are viewed as stationary objects, but that textile fabrics are, for the most part, seen in motion, for the idea of suspension in artistic economy always involves more or less of the idea of motion. Hence there is not the same necessity for taking in the totality of a design for paper at one glance, as there is for the immediate conception of the completeness of a design for textile fabrics. It may be fairly questioned whether the limits to this law should be very rigidly interpreted, and whether the designer for paper-hangings may not, to some extent, assume the privileges of a pictorial artist, and hazard the production of some of the effects either of frescoes or water-colour drawings. We do not intend to give any absolute decision on this knotty point, because that we hold strict definition to be a very serious evil when applied to the arts of design; but we may be permitted to suggest that there is some danger of confusion arising if an attempt should be made to enrich a pattern, primarily based on a tapestry design, with effects borrowed from frescoes or water-colour paintings.

The design under our consideration has the merit of being very suggestive; it at once shows itself susceptible of many variations, not merely in the colours but in the forms. This illustrates a difficulty which has often presented itself to the minds of those who have paid much attention to the copyright of design, namely, the difficulty of defining with precision and accuracy what are the elements which constitute novelty in a pattern. Many minor variations of this design would be mere imitations; and yet a little consideration will show that variations, which to the initiated would appear of little importance, would really produce so different an effect from the original as to result in almost complete novelty. And here we must be permitted to say, that in nothing has the taste of Mr. Wilson, the Director of the School of Design, who was intrusted with the purchase of articles for the use of that establishment from the Parisian Exposition, been more apparent than in his selection of patterns suggestive of a new style, as well as meritorious in their excellence of design.

Turn we now to a paper-hanging of a very gorgeous and beautiful character. The ground is white, the ornaments a rich crimson, the leaves of the involved flower pattern are a natural green, the flowers a bright blue, and the berries red. In this design the ornaments of form combine very gracefully with the

flower and fruit pattern, though they do not bear to the natural branching any immediate or perceptible relation. The white ground is richer in its effect than is usual in papers of this style, and the crimson ornament seems to be subordinate to the flowering and fruitage. Like the preceding, this design has the merit of being pre-eminently suggestive. It is, we think, a very good example of treating the subject so as to render it doubtful which part of the combination was designed to preponderate in the pattern. The colours employed leave very little room for variation, those of the leaves, flowers, and fruits being fixed by nature. We should, however, protest against one variation which we have heard suggested, and that is making the ornament either of gold or silver. Such a change would render the ornament the principal feature of the design, which it has not enough of massiveness or strength to bear. In a design of this character it would be clearly erroneous to give prominence by any glaring or striking colours to those parts which had been treated as accessories. We insert a design, otherwise meritorious, in which this error has been made. The ornament here, if sufficiently

toned down, would have been in strict keeping with the floral design, and would, in fact, have been regarded, as the artist clearly designed it to be, as merely the chain or bond which held the parts together. There is much significance and force in the re-entrant spirals, which are of late very sparingly employed by designers, though they may be so treated as to produce very pleasing combinations. It may be noted as rather novel, that in this pattern there is a blank centre, which, while on the one hand it detracts from the unity of the pattern, does not in the slightest degree interfere with its totality and completeness. The festooning and arrangement of the flowers in this design merit high praise for the grace and lightness of their effect; and on close examination they will be found to harmonize very completely with the spirals of the ornament.

It is not uninstructive to compare the design we have been just examining with one which, instead of a void centre, presents the central piece as the main object of the design. This

pattern belongs to the style in which the widest departure is made from tapestry as the basis of design for paper-hangings, and an approach is made to the domain of the painter. Although not quite free from the formalism of the school of Louis XV., and making too close an approach to panelling, there are some striking merits in this design, particularly in the successful treatment of adjuncts and subordinates. The style, however, to which it belongs is one far more applicable to panelling, where each piece must be a unit by itself, than to repeated pattern, where, in addition to completeness, some links of connexion are imperatively required. We may add, that the size of this pattern in the original appears to us rather limited, and that hence arises some appearance of confusion and crowding. It should be further remarked, that the introduction of pictures, of vases, and other artistic objects into paper-hangings is one of very dubious propriety, because the objects themselves enter largely into use as parts of domestic decoration; and it is a clear error to bring at the same time under the eye both the original and the representation.

We have placed two designs here together

for the purpose of showing how successfully the French artists have treated the subject of closely covered patterns; a branch of the art of paper-hangings which has hitherto been very much neglected. Here the designer for papers will make his nearest approach to the designer of textile fabrics, particularly printed calicoes, chintzes, and furniture cottons. The papers we have taken are very effective in the original, but the reduced size in which we are forced to present them must, to some extent, prevent a full appreciation of their merits. These papers are the most popular with the operative classes of the Parisian population, probably because they give to a room a more furnished appearance than looser patterns would afford. We may here notice that we saw but one specimen of the single-coloured damasked papers, which have acquired some popularity in England; they appear to us decided failures in every respect: they give to rooms a painful look of emptiness, vacuity, and chilliness, which is not tolerable even in the midst of summer. Besides, the damasking of any stationary object is evidently a blunder, for the merit of damasking is to derive effects from constant variations of light and shade.

Borderings to paper-hangings have recently fallen a little into disuse in England. Among the specimens of paper-hangings in the French Exposition there was one which struck us as likely to give considerable effect to a papered wall, on which the decorator was unwilling to use bordering. It was a specimen of what we may venture to call "cornering," and, if brought into use, would have the effect of giving to the entire face of the wall, when taken as a unity, the effect of a single entablature. This effect

was frequently sought and obtained in the more ancient forms of moresque and arabesque decoration, where the design of the artist was to make each wall a unity and totality in itself; that is to say, to produce an effect the very reverse of panelling, by making of the entire wall one single panel. The effect may be pleasingly produced in many other styles besides the arabesque, for instance in the simpler forms of *La Renaissance*, and perhaps in the subdued style of Louis XIV. It would be very appropriate to apartments where the wall can be taken in at a single glance; for instance, to closets, boudoirs, and dressing-rooms; but in large apartments the cornering would be ineffective, because it would be a framework not conveying instantaneously the notion of enclosure. These "cornerings" are not, however, new; we saw specimens of similar contrivances in apartments that had been furnished previous to the Revolution. In the specimen we have given there are but two colours, blue and black; it would, therefore, be a pattern appropriate as bordering only to papers of a very simple style. We have been informed that these cornerings are rarely used when the ceilings are not decorated; and as this latter is as yet a very novel fashion, though it is rapidly extending in France, the cornerings have not been yet produced in any great variety.

The deep and extremely rich bordering for wall-paper, which we now place before our readers, is equally remarkable for the lavish wealth of its design, and the extreme simplicity of its colour. All the dark parts are in a clear reddish brown, upon a pale blue ground; the outline ornaments are of a dull red, toned in the extremities to a bright yellow. The management of the colouring is very clever and artistic, it brings out the design with the most marked effect, and with a significance such as we have rarely seen excelled. There is something gorgeous and massive in the conception of the design, which produces a very stimulating effect on the imagination. It is suggestive of some antique cornice with rich hangings, and would require to be used with paper of a very striking character, or else it would be an adjunct that would quite absorb the interest of the principal. While the details of the design not only bear, but seem calculated to invite very close examination, the effect of distance does not at all take from its imposing grandeur; on the contrary, it will be found that the reticulated rhomboids between the large flowers in the upper bordering produce most pleasure when viewed at a distance and from beneath. This design was one which the King of the French singled out as of superior merit, and we are glad that our admiration of it has received the sanction of royal taste.

This design merits a more minute analysis of its parts than our limited space will allow us to bestow upon it. The upper line, which has no decoration but circular spots, may be regarded as leading the eye from the plain ceiling to figured pattern; the scrolls of the second line, scarcely more complicated in form than the circular discs above, are very elegant in themselves, and very gracefully introduce the cruciform flowers and reticulated rhomboids. Another line of scrolls is so contrived as to suggest the notion of suspensory points; and these suspensory points, thus artistically introduced, appear in the next line, carrying with them a system of wires or linked rods, from which the festooning falls in alternate patterns of great beauty, and with just enough of diversity to establish a claim to sisterhood.

"Facies non omnibus una,
Nec tamen diversa, qualem decet esse sororum."

We admire this pattern of bordering, not merely for itself, but for the hints with which it is rife to foster and improve the rising taste for domestic decoration. We hope to see the day when the artistic decoration—no matter how small the size—shall be considered as brought within the scope not merely of Art, but of Science, and both walls and ceilings have their ornaments subjected to the influence of recognised principles.

We turn next to a bicolour border of blue and brown, quite different in character from that which we have been examining, and wavering in its style between *La Renaissance* and some of the earlier school of Louis XIV. It is essentially French in its character, exhibiting that favourable combination of our lively neighbours, the union of fanciful forms with flowers. The ornamental form has here so much predominance as to make it, in fact, the guide to the whole design, in which the flowers are adjuncts of very minor importance. When carelessly examined, these ornamental curves seem to offer nothing on which the mind can find an opportunity for dwelling, and one feels at a loss to explain the reason of the very favourable impression it produces. Closer investigation, however, will show that the curves all belong to the same generic class, and that, while an agreeable variety has been introduced by changes of specific characters, there is no such departure from the primary law of the curve as to produce an inharmonious discrepancy. There is one little difficulty to be got over in estimating the merit of this piece of bordering, and that is the difficulty of judging the effect of a pattern, which is constructed for the especial purpose of disguising the points of repetition and reproduction, from an engraving, which only gives the main design simply and by itself. In this and in several other pieces of bordering displayed at the Exposition, the repetition of the pattern, so far from producing anything like an idea of sameness or weariness, was actually sought for by the eye as a key to the interpretation of the pattern itself. Viewed isolated and alone, the design loses much of its merit; it is essentially cursive, and we are necessitated to exhibit it as if it had been a hieroglyphic. This style of bordering is, however, more likely to be successful in France than in England, for as yet the English eye is not trained to the practice of seeking lengthened explanations from long continuity of design. In the use of borderings for the decoration of ceilings, we think that patterns of this kind, when judiciously managed, might be used with very pleasing effect. There is sufficient complication to arrest the eye that views them from below, and enough of variety to prevent that weariness which results from viewing colour in a constrained position. This design which we have been examining helps us to refute an error into which several writers on what we may call the minor points of artistic decoration have fallen, when they insist that every thing which is intended to set limits to the field of view under which objects are surveyed must be viewed as coming more or less directly under the character of picture-frames. Now, it is unquestionably true that the bordering of wall-paper does, to a certain extent, subserve the same purposes as a picture-frame, by assigning limits beyond which the eye should not wander in estimating the effect of a certain given and definite *tout-ensemble*; but, on the other hand, it must be remembered that the border and the paper-hangings belong essentially to the same category of decorative art; there is no such distinction as the one being the realization of the conceptions of a man of genius, and the other the production of a mere mechanic. It requires just as much inventive power, and just as much artistic skill, to produce a good design, either in cornering or bordering, as in paper-hanging; indeed, we believe that the bordering gives the larger scope for the exercise of inventive power and ingenuity of adaptation. Most of our English borderings, however, were, or at least seem to have been, produced under the notion that the border ought to be just as much subservient to the paper-hangings as the frame is to the picture; and hence they were cursed with a poverty of invention and feebleness of execution which has gone far to consign them to disuse and oblivion. Now, the first bordering which we have copied is in itself as perfect as the very best of the papers which we have given in the preceding part of the article, and would not be found ineffective if applied by itself to an otherwise naked wall. In fact it would be possible, though we doubt whether it would be desirable, to make the paper-hangings the subordinate and the borderings the principal. It is unfortunately too true that a similar reverse of relation is sometimes found to take place in frames and pictures, but not as we apprehend from precisely the same reasons. We believe that borderings to paper-hangings have been rather too hastily discarded by some of our English domestic decorators. It has long been our belief that they could be made very valuable adjuncts in relieving the monotony of a flat wall, and that they could be made to lend very effective assistants to mouldings, cornices, and stucco.

The simple gold and silver beadings which have been recently introduced appear to us very tame, cold, and unmeaning. A style of decoration which is not in some way suggestive of thought, but which tends to foster listlessness and vacuity, is only tolerable in some country where people are doomed to doze away seven-eighths of their existence. In France the rising style of domestic decoration is pre-eminently suggestive; in England, whenever artistic skill is brought to bear on the ornamenting of houses, it would seem as if the first principle was to treat intellect as an interloper, and to discard everything which would give people the trouble of exercising their reasoning faculties. This is one of the causes of that tameness of design with which we have been afflicted in every branch of Art, both high and low, but most signally in everything that has relation to domestic decoration.

The next border to which we have to direct attention is a very happy imitation of the effects of wood-carving. In this design the colour of the ground is old oak, and, by a judicious use of bold and broad relief, the pattern appears to be raised work of the same material. In this and in many other instances we find the French artists far more daring in the free use of bold relief than their brethren in England. There is great simplicity and great chasteness in this design, which recommend it at once to notice. Considerable care has been bestowed upon the drawing, and the harmony of the proportions will at once strike the most casual observer. This pattern may also be ranked among those which are types of a style: it is suggestive of many combinations which would give abundance of variety, and more particularly of imitations of rustic work. This is a border which tells well on a simple wall, and yet is very suitable to a wide variety of paper-hangings. We think, however, that it would be most effective when combined with panels or imitations of wainscot.

The last paper-bordering which we deem it necessary to notice is one of very peculiar yet chaste design. It is bicolour, the ground being purple and the ornaments scarlet. Like the

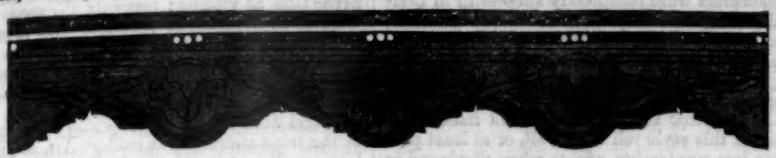
first we engraved and noticed, it is cornicial in its character, but, unlike that deep and involved design, it tells its story at a glance. It may be objected that its design has too near an affinity with cornice; and, when viewed merely in simple outline, as it necessarily must be in our engraving, we feel that there is some plausible appearance for the charge; but viewed in colour, this defect disappears, and it is found to be one of the most effective borderings in the whole collection.

Before we dismiss this subject we feel bound to say that many of these objects would, probably, have escaped our notice in the Exposition had not our attention been called to them by the Director of the English School of Design. We shall not be able to give more than a few specimens of the various articles which the liberality of the Government enabled him to procure in Paris for the improvement of our English schools. We trust that the attention of the public will be directed to the exertions which have been made; and it gives us great pleasure to record that the acquisition of these treasures has already produced a most beneficial result on the pupils in the School of Design at Somerset-house—an improvement which, to a manufacturing and commercial nation, is worth the cost of the articles acquired by Mr. Wilson ten thousand times told.*

* And here we desire to lay some stress upon the fact, that, inasmuch as these designs are public property, it is the earnest wish of the excellent and accomplished Director to render them, as far as possible, available for public advantage. When private individuals make purchases they are directly interested in keeping them as exclusive as they can. At the School of Design, however, the case is the very opposite; the object being to augment taste and to facilitate improvements on the part of manufactures—any manufacturer or artisan may examine, without restriction, the whole of the articles acquired for the nation out of the national purse. We trust this great source of benefit will be as freely resorted to as it is freely offered. There is no class to whom it may not be largely useful: to the producer whose means are less extensive than his desires, it offers a rich mine; while to wealthier men it supplies a valuable auxiliary.

In a word, then, it cannot be too widely and generally known, that one great purpose of the Government School of Design is, to provide a depository where really good productions, from all parts of the world, may be examined freely and without cost.

The last bordering to which we wish to direct attention is one in which the pattern closely approximates to a cornice in its general character, the objects on it being very strongly



class of ornaments is invested with the characters which are peculiar to another. It must be confessed, however, that the French artist has successfully struggled with this difficulty, for the cornicial character is kept so subdued as to be manifestly the subordinate, while it so combines with the dominant elements of paper decoration as to appear to grow out of them. The design is one which owes little if any of its effect to colouring; its chief merit is obviously in the harmony of its forms. For this reason we are disposed to regard it as one of the most suggestive of the designs for paper-bordering in the entire collection, and we think that it is one which well deserves to be closely examined by the student. And here we may remark, that analysis of patterns is one of the most useful exercises for a young designer. He must not only regard the success of general effect, but he must at once resolve that generality into its constituent parts, and see in what degree each element has contributed to the ultimate result. For such an exercise no better materials could be found than the paper-hangings, cornerings, and borderings which we have had under examination; and we are sure that such an analysis would suggest new combinations not merely for paper, but for all the materials that enter into the wide domain of decorative art. We should also wish to direct the attention of students to the differences in the designs appropriated to different materials, and particularly to the difference between those for paper-hangings and for textile fabrics. We need not dwell upon the distinctions, which are, indeed, sufficiently obvious; but we recommend the tracing of them out as a useful part of that training which is most essential to a young artist, we mean the education which he works out for himself.

Among the articles of domestic decoration, purchased by Mr. Wilson from the French Exposition for the use of our School of Design at Somerset-house, the cornices deserve to be

especially noticed. That which we have copied is composed of gilt metal on a ground of green velvet, the gilding of the metal being effected by the electro-plating process. It will be seen that the style is rather a subdued variety of that which bears the name of Louis XIV., and to some extent goes back to the simple forms of *La Renaissance*. We copy another, which is still more subdued in its character, though by no means less rich in its effects. The use of such decorations, of course, presupposes that

the rooms which they are used to decorate are sufficiently lofty to admit of this style of ornament. We have remarked in Paris that the rooms tenanted by the middle classes are generally more lofty than those of England, and are therefore more easily ventilated in summer, and capable of being kept at a more equable temperature in winter. In a sanitory point of view there can be nothing worse than low ceilings: they always lead to the peril and inconvenience of drafts; the heated air in winter, instead of ascending to the upper part of the room, and thus continuing to preserve an equable warmth, makes its escape through every door that opens, and through every chink and crevice of the apartment. Cornices in France enter into the domestic ornaments of classes that rarely indulge in such decorations in this country; we should wish that our style of domestic architeture were so far modified as to allow of the more extensive application of the decorated cornice, for the result would not only add to the beauty of the apartments, but greatly contribute to the health of the inhabitants. Since the Exposition closed, the upholsterers of Paris have introduced a new and very effective style of decoration, which has much to commend it, in domestic economy. Their iron bedsteads are so constructed as easily to receive and support cornices of their metal, *papier mâché*, or *chauvre impermeable*, and to receive the most exquisite systems of drapery. These bedsteads have a lightness and elegance which our massive edifices (for they are rather buildings than bedsteads) of rosewood and mahogany can never attain; they are convenient of transport, easily taken down, and easily put together again; and, for reasons which will readily suggest themselves to the reader, the advantage of being able to take a bedstead readily to pieces, and examine all its joints, crevices, and spots on which dust may lodge, is too obvious to be further insisted upon.

Cornicial decoration appears to have been originally of Gothic invention, and it enters very largely into the style of ornament belonging to the older Norman. There are some, however, who assign it a far earlier date, and derive it from the shrines and *adyta* of the ancient temples, asserting that it is primarily designed to aid in suggesting the notion of an edifice within an edifice. But, however reasonable such a hypothesis may be, it is unquestionable that the purpose to which cornices subserve in modern times is very far removed from such an original intention, just as hangings and curtains, which were primarily derived from the coverings of tents, and, therefore, intimated a direct purpose of concealment, are very often employed in localities where the slightest idea of secrecy would be inadmissible. There is, probably, no part of domestic decoration which shows more strongly the necessity of cultivating the art of adorning private mansions and residences as an art, than the use and abuse of cornices. They are very seldom taken into account in the general plan for the furnishing and fitting up of the room in which they are employed, and when introduced they have too frequently the effect of superfluous afterthought. It would be a very advantageous exercise to pupils in the School of Design, to employ them in giving plans for the decorations of supposed rooms, to examine with what success they have accommodated the predominant colour of the walls to the peculiarities of the aspect—the patterns of the hangings to the colour, and also to the purposes for which the apartment is intended—the furniture to the size and purpose of the apartment—the carpet to the other accessories—and the cornices and window-curtains to the *tout-ensemble*. Some of the drawing-rooms, which pass for being the best furnished in England, are nothing better than crowded cabinets of monstrosities and incongruities, in which a correct taste is offended at every step and every glance. For the most part our rooms are over-furnished; we have seen many saloons which resemble nothing so much as an upholsterer's warerooms: they were "as full of defiles as the island of Corsica, and quite as obstinately defended;" to thread the labyrinths which were formed required that the adventurous visitor should be furnished with the clew of Ariadne, and even when thus aided it would be difficult to avoid the peril of encountering some monster of nondescript character, compared with which the Minotaur itself would be qualified for the peace establishment of prosaic realities. In the decorations of rooms, and indeed in all forms of ornament, the ideas most closely associated with pleasurable emotions are those of totality and unity; every discordant assemblage of unharmonious parts, whether in a small object or a great one, necessarily produces an unpleasant effect on the educated eye. It is often curious to observe how sensible even the uneducated eye is to minor defects of arrangement, and how even a change which it is not always easy or, perhaps, possible to point out with precision, will produce a jar of exactly the same character as a harsh discord in music. Everybody's experience has taught them that there are servants who, when intrusted with the cleaning and arrangement of a room, will leave it with an appearance of untidiness, in spite of all the cares they may have bestowed upon setting it to rights; there are, on the contrary, others who, either from natural aptitude or from special training of the eye, will so arrange even moderate furniture in a room as to render the general effect far superior to the splendours of the most superb saloon. And here we may mention, that at the Corporation Schools of Liverpool, so long as they were conducted on the national system, the children were trained to this exercise of the eye; and we were equally surprised and gratified to see how quickly even the youngest could detect the slightest deviation from order in the arrangement of the tables and forms of the school-room. Unfortunately these schools have since passed under a different management, which is far from being conspicuous for a love of order either in this respect or in any other.

Cornicial decoration enters much more largely into the architecture of ecclesiastical interiors in Catholic churches than it does in Protestant places of worship. Now that a taste for religion, or at least for the outward forms and what may be called the materialities of religion, is rapidly spreading through France, it were to be wished that care should be taken to render the subsidiary decorations consistent with the ancient edifices. Unfortunately there is a tendency to introduce cornices *à la Renaissance*, or even in the style Louis Quinze, into some of the Norman and mediæval cathedrals, where such ornaments are just as incongruous as lace-ruffles would be attached to a coat of mail. Such inconsistencies are peculiarly glaring in churches, but they are scarcely less offensive in private rooms. Perhaps no ornament is more liable to be perversely misapplied than the cornice; and, on the other hand, there is none more effective when judiciously managed by the house-decorator.

It is only within the last few years that carpets have come into general use in France;

but the manufacture of them has made very considerable progress in some of the northern departments, and considerable artistic skill has been displayed by the designers of patterns for this important article of domestic decoration. Mr. Wilson has purchased for the use of the School of Design in Somerset-house, several beautiful specimens of the carpets which were displayed in the Exposition, but, unfortunately, their merit as designs could not easily be exhibited in a wood engraving. The skill of the artists is most manifest in the special application, both of colour and form, to the peculiar nature of the textile fabrics for which their patterns were designed. But this is not all that is required for the perfection of carpet patterns; it is necessary to take into account the nature and amount of the light under which those patterns will be seen and examined. This is a matter which of course belongs more to the cognizance of the purchasers of carpets than to the designers or manufacturers; it is, however, not the less necessary to impress upon the minds of all who wish to study domestic decoration as an art, that the aspect, purpose and general style of a room, must be fully considered and thoroughly comprehended when the pattern of the carpet with which it is to be covered is about to be selected.

In the Exposition which has been opened at Boulogne for the departments of the north of France, but which will have closed before the present number gets into the hands of our readers, there is a very rich display of beautiful carpets; those which have struck us as the most remarkable, both for novelty of design and exquisite execution, have worked out their patterns in different shades of the same colour. The Boulogne Exposition has a better assortment of hearthrugs than was displayed in Paris. We particularly noticed one on which the hunting of the boar was represented; the boar and the dogs were executed with great spirit, and there was one representation of a wounded dog worthy of the best painter of animals in modern times.

In the French carpets, however, we find an increasing tendency to adopt tapestry-patterns. This we regard as a very serious error. The hearthrug may, perhaps, be allowed to take pictorial forms, because it is possible to view this article of furniture as a thing apart; but a pictorial carpet has something unnatural in its effect, for nobody ever dreamed of actually walking over the figures of men and animals in real life. We have seen a design for a carpet intended to commemorate some triumphs of the French armies, and which, if brought into use, seems designed to symbolise a perpetual trampling down of enemies. Such a perverse notion has not even the merit of novelty, for the Egyptians, in the days of the Pharaohs, painted representations of their detested enemies, the Hyksos, on the soles of their sandals, intimating that they trampled on a foe at every step. But, in order to realise such a notion, the French designer must only represent one side of the combat, and merely depict enemies, otherwise those who walk upon his carpet will trample friends as well as foes. Perhaps it would be an improvement on this ingenious notion to adopt the course pursued by the painter who was engaged for a moderate sum to decorate the walls of a staircase in a country church with a representation of the passage of the Israelites over the Red Sea; he daubed the wall with red paint from top to bottom, and then averred that he had executed his task. "Where are the Israelites?" asked the astonished parson. "They have passed over safely," was the cool reply. "And where are the Egyptians?" continued the clergyman. "Of course they are all drowned."

It was in 1839 that this taste for pictorial carpets first became rife in France. In that year one of the carpets which obtained a gold medal at the National Exposition in Paris represented some scenes of Chinese warfare, copied from a collection of native pictures and embroideries in the Royal Museum. The manufacturers were completely successful in their imitations, not only of the Chinese costume, and faithful in the accessories of Chinese landscape, but they had the further merit of having copied with complete exactness the stiff and hard style of Chinese drawing. Now, it does so happen that the formalities and harsh outlines of this style tell very well, or at least produce less unpleasing effects when displayed in embroidery or interwoven in textile fabrics than under any other circumstances; and the carpet in question produced, on the whole, a very rich and lively effect. But at the Exposition this carpet was suspended against the wall like a piece of tapestry, and consequently afforded very imperfect means of estimating its effect when spread upon the floor. This same carpet has been displayed this year in Boulogne, and we have had an opportunity of seeing it both suspended as tapestry and laid upon the floor. The difference of the effect in the two positions was very remarkable: as tapestry it was exceedingly rich and pleasing, but as a carpet it was as decided a failure as we ever witnessed.

Politicians may say what they please about Tahiti and Morocco, the most probable cause of quarrel between France and England is their rivalry in porcelain. Compared with this, the questions whether the Mediterranean shall be a French lake, or the Pacific changed into the Belligerent Ocean, sink into complete insignificance. The friends of peace may henceforth boast that war has gone to pot. To speak seriously, the French manufacturers of porcelain are jealous and alarmed at the great progress which their English rivals have recently made, and the name of Staffordshire excites amongst them greater alarm than that of Wellington. Under these circumstances, great exertions were made at Sèvres and the other royal manufactories of porcelain to produce unrivalled works of Art for the Exposition; and it is highly creditable to the spirit of the Directors of our School of Design that they have purchased the very best specimens for the improvement of our English artisans. The splendid vase which we have copied is even more rich in execution than it is splendid in design. The ground is a rich gold, superior to any which has yet been produced by our manufacturers, and is highly burnished. A similar design exists in glass, which we copied in our preceding number; but the glass is far from being so effective as the gold porcelain. In the Sèvres vases exhibited at the Louvre we were equally struck with the richness of the gold ground; and on close examination of those specimens, and of others which we saw at the manufactory, and in the great Parisian depôts, we were led to conclude that the French possess an art by which the metallic covering is not simply laid on, as in ordinary gilding, but is by some means or other actually incorporated with the substance of the porcelain to some depth below the surface. We doubt whether silvering has been brought to the same perfection as gilding; certainly the specimens we saw of silvering on porcelain were failures, so far as effectiveness is regarded; but we are of opinion that this is a branch of decorative art applied to glass and porcelain which is susceptible of very great extension.

Floral decorations of vases may be regarded as the most successful in modern Art, and they have at all events the merit of appealing to a wider range of sympathies and to simpler taste than mythological or even historical subjects.

The magnificent vase which we have here copied is one of the best that has ever been produced at the Sèvres manufactory, and is highly creditable to the taste and talent of all who had a share in its preparation. The outline curve is a modification of the Etruscan form, and is less purely geometric, though not less perfect in its mathematical proportions. The harmony of the curve forming the neck with that of the main body is conspicuous at the very first glance, and does not cease to be felt pleasing so long as it is contemplated. The small curve formed by the base is equally harmonious with the general design, and such a form in the coarsest material and utterly destitute of ornament would be sure to arrest attention. Indeed, since the Exposition was closed, we have had an opportunity of examining an imitation of this vase in plain Beauvais ware, and found that, so far as form is concerned, it was not less charming than in splendid porcelain. The porcelain of which it is manufactured is exceedingly lustrous, but without any of the unpleasant vitreous effect which is too often produced when manufacturers are anxious to exhibit a very clear and

semi-transparent, or rather more than semi-transparent porcelain. But the merit which will most attract general spectators, is the exquisite beauty of the flowers; in grouping, arrangement, position, and colour they are absolute perfection. We particularly notice the arrangement and position because we have remarked that most of our English flower patterns are deficient in these particulars, which, however trifling in appearance, have really great influence in fixing the character of a pattern. On more than one occasion we have stated our belief that this is in a great measure to be accounted for by our artists having had the habit of drawing from cut flowers, while the French almost invariably draw from the growing plants *in situ*. In the design before us every stem and tendril has its own natural curve; there is not a leaf or petal distorted from the position which it holds in the living plant. We should strenuously recommend our flower-painters in the different branches of decorative art to study attentively the design on this vase, for it is a decisive proof of the superior effect that is derived from drawing from the living plant. The grouping exhibits even in the colourless outline which we have given extraordinary skill in the combination and harmonizing of forms; but in the vase itself the taste with which the natural hues of the flowers are blended and relieved will be found even more worthy of admiration. It is a very common fault in English porcelain to overlay flower patterns with colour, and bring out stronger and more glaring tints than belong to the originals in nature; indeed, the French artists do not always avoid this besetting sin; and we noticed more than one floral pattern in the Exposition, where the design was sadly marred by over-colouring in the execution. In the vase before us this error has been completely avoided: the colours of the flowers are subdued and toned down so as to have the effect of being seen through a soft atmosphere; and this, of course, suggests a pleasurable association, which is not without weight and significance in the estimate of the general effect. And here we must repeat what we have already had occasion to mention in our notice of the Potteries, the very pleasing variation of floral decoration, of which we saw a specimen at Copeland's; the colours were subdued so low as to produce the impression that the flowers were seen through the medium of a soft haze or light mist, and the general result was exquisitely pleasing. We should be glad to see this style attaining the popularity and celebrity which it well merits, for the staring flower patterns, which are so common, always produce on us the effect of jarring harshness.

Before leaving this exquisite vase, we must give our opinion that its merit, so far as form is concerned, does not in any way depend upon its size. The form is just as applicable to the smallest ornamental vases as to the large size in which it has been executed. But size is essential to the floral design with which it is decorated, in order to allow of every flower being painted with its natural and appropriate magnitude; indeed, we doubt very much whether the same pattern in a reduced size would be found effective. At the same time, however, that we do not hold any definite pattern to be requisite to the form of this vase, we are of opinion that it is a form particularly suited to receiving floral decoration. The elongated curve allows a free introduction of the tendrils and stems of the plants which greatly contributes to the effect of the flowers.

In the vase which we have been considering there are no handles; and we, therefore, place next it (see next col.) a vase of elongated form, to which an appropriate system of ansation is attached. Here the form is more complicated than in the vase which we have just had under our consideration, for the neck curve is mathematically distinct from the body curve, and this necessitates some provision for the lines of junction

and transition. Generally speaking, we do not like the vases of two or more very distinct curves so well as those in which the difference of curve is so slight as not to bring the eye to to a check at the points of transition, when there must be always more or less of a jarring effect. In the vase before us considerable ingenuity is exhibited in getting over this difficulty, by a skilful and delicate management of the ansation. The handles continue the body curve in their general outline, but very skilfully break its uniformity by the scroll indentations, and thus by a designed imperfection in strict geometric outline prevent the contrast with the neck curve from being immediately obvious. This ingenious and artistic concealment is rendered still more effective by the volutes at the insertion of the handles, which are in the essence of their spirals transitions from the curve of the body to the curve of the neck. The effect of the semi-volute at the extremity of the handles is very ingenious and quite original. Altogether the vase is one of admirable form; if it has any defect, we should should say that the eye feels the want of a plinth or basement, and that the neck curve approaches a little too near the simple cylinder. The pattern is very simple, for the success of the vase was intended to rest simply on its form. We have seen copies of this form in the Beauvais ware, and found it far more effective than we could have anticipated; and we should think it one that would be successful in many varieties of material.

Wedgewood was the first of the modern manufacturers of Europe who regarded the designs for form as of far more importance in their artistic value and effect than designs of pattern. Our French neighbours have only recently discovered this truth, for most of the older vases in their collection exhibit far more of skill in the elaboration of the paintings with which they are decorated, and the brilliancy of the colouring, than they do of the knowledge of effect to be derived from form and outline. Without going quite so far as a celebrated amateur of porcelain in Paris, who asserts that every vase should be first estimated by the projection of its shadow, in order that the judgment on form should not be bribed or perverted by the effects of gilding, colour, and decoration, we are strongly of opinion that our artists for the Potteries stand much more in need of training in designs for form than in designs for pattern. It is unfortunately too true that no forms have been produced in modern times which can at all compete with those which Flaxman prepared for the elder Wedgewood. Not the least of the merits of the selection made by Mr. Wilson is the preference he has given to form over mere pattern; and this is one among many grounds for our hoping that the mercantile value of the Fine Arts will soon be universally recognised through the exertions of the Schools of Design in various parts of the country, but more especially of the central School at Somerset-house.

A vase of a far more elaborate character, uniting in its claims to approbation the highest merits in form, pattern, and colour, next comes under notice. The ground colour of the vase

is a beautiful blue, which relieves the rich gilding of the ornament, and produces somewhat of the same effect as the glowing of the stars in the sky of a summer's night. The curves of which the form is composed, though apparently broken into parts, really harmonize into one system; nor is there an instance of abruptness or of harsh transition in any portion of the design. The base and plinth have just sufficient permanence to convey the notion of stability; and the slight swelling band above the base confirms this part of the conception, not less by its external form than by its chased pattern. The elongation of the tapering curve which forms the body of the vase is exquisitely beautiful, even to the most uninstructed eye; and, instead of abruptly finishing, it is carried on by the ansation, until lost, one scarcely knows how, in the volute. The upper part of the jug gives a curve of the same character, but with reverse dilation; and this, of course, prevents the occurring of any harshness at the points of contact. The system of ansation is peculiarly rich; we, however, incline to think the handles a trifle too ornate, though we are well aware that but few will coincide with our opinion. The coronal summit is the most original and not the least meritorious part of the design, and might, perhaps, have appeared heavy if accompanied with a less ornate system of ansation.

Elaborate form is in this instance accompanied by elaborate pattern. It would, however, be a mistake to suppose that the two are

necessarily or essentially connected. There are no canons existing on the subject, and we do not pretend to set ourselves forward as legislators. In the particular instance before us we think that the form would have been inappropriate to a perfectly plain vase, or to one with a pattern so simple as that of the vase which we had previously under our consideration. No doubt there are relations between the design of form and the design of pattern, and that the violation of them would be felt as a sin against good taste; but it would be exceedingly difficult to lay down any fixed rule upon the subject; indeed, we are disposed to believe that every individual instance must be judged by its own merits.

The vase to which we have next to direct attention is remarkable for its complete novelty; it is a porcelain imitation of ivory, and the resemblance is the most perfect that can well be imagined. It does not appear from the price that the process by which this novel species of porcelain is manufactured would be so very expensive as to discourage its introduction into this country. We should strenuously recommend some of our enterprising manufacturers of Staffordshire and Worcestershire, when they visit London, to examine this beautiful specimen of a pleasing novelty in their art. And here we must take an opportunity of noticing the great efforts made by the School of Design to collect extensive materials for the instruction of designers in porcelain, and our earnest hope that the manufacturers will second their efforts by largely contributing to the Museum of Models, which is now being formed under the superintendence of the intelligent Director, the indefatigable Mr. Wilson. It would cost the manufacturers a mere trifle to send models of their best forms in bisque to Somerset-house, and they would be more than repaid by the efforts of the pupils to make new combinations from these forms, and at no distant time they would reap a still richer reward from the gradual diffusion of a taste for decorative art.

In the vase which we have copied the light part of the engraving exhibits that portion which imitates ivory, and the imitation, by preserving accurately the veins and graining of the ivory, not only greatly increases the semblance but adds considerably to the artistic effect. The dark part exhibits the rich gilding with which this beautiful article is decorated, and the effect of the gold on the imitation of ivory is really one of the richest and most gorgeous pieces of ornament which can well be imagined. It would seem as if the vase had been designed to match the peacock-throne of the Emperors of Delhi.

We have already observed, in treating of porcelain, that two very different matters are to be taken into the account of the designer, namely, form and pattern. The French artists in general pique themselves on their scrupulous accuracy in the production of geometric figures; indeed, most of them are very competent mathematicians, as might reasonably be expected in a country where mathematics enter very largely into the course of elementary instruction. In this respect the English schools are far behind the schools in the rest of Europe, and most of the schools in the United States of America. We state as a fact within our own knowledge, that there are very few establishments for the instruction of the middle classes in England supplied with teachers competent to conduct pupils through a course even of elementary mathematics. Until this gross and glaring defect be remedied, we fear that our Schools of Design will not produce all the good which has been expected from them. Artists cannot be made by mere practice and copying; it is necessary to store the mind with principles as well as to train the hand to skilful delineation and execution. We are well aware of the general impression among English artists, that a rigid adherence to mathematical forms is very likely to produce stiffness and formality; but we are persuaded that this erroneous prejudice has arisen from the servile copying of certain established curves, and the consequent abandonment of originating new curves, or rather new varieties of curve. The circle is the only curve which admits of no variation; but the varieties of the other conic sections—the parabola, the hyperbola, and the ellipse—are countless and inexhaustible. We observed in walking through the show-rooms of the dealers in porcelain, and even of earthenware, in various parts of France, but particularly at Paris and Sèvres, that it was exceedingly rare to find a curve deficient in its geometric proportions: we cannot pay the same compliment to the great bulk of the porcelain manufactured in England.

The French, like ourselves, have frequently tried the experiment of introducing rectilinear instead of curvilinear forms into glass and porcelain. In all cases the results have been utterly detestable. Nature herself has suggested the curvilinear form for all vessels of capacity; and though we are far from insisting that the idea of utility forms a necessary and essential component part of the idea of beauty, yet we strenuously contend for the principle, that an adaptation of form to ultimate purpose is a most important ingredient in every estimate of fact, and that it is in many cases the dominant ingredient of almost involuntary decision.

When we discussed this subject in a previous number we intimated our opinion that the French manufactures were superior to those of England, in the chemical combinations and applications of colour. All subsequent inquiries have tended to confirm this opinion; and we fear that the day has not yet arrived when the Potteries will be able to boast of their Henrys and their Daltons, and when the chemical improvements in the colouring of fictile materials will rival the wondrous advancements which we have witnessed in the printing of textile fabrics. We have repeated our examination of the best specimens of gilding produced at the Sèvres manufactory, and have compared them with those of England; and we have been forced to the conclusion that the French are in possession of the secret of some process unknown to our manufacturers, which gives the burnished gold on their porcelains a brilliancy and lightness which are as yet unrivalled in any other country. We know not whether this is to be ascribed to superior knowledge of chemical combinations, or to superior skill in certain processes of manipulation; but we suspect that both causes have conjoined to produce this triumph. At the same time it is only justice to add, that we have seen recent specimens of gilding produced at Minton's and Ridgway's, which are vast improvements on the articles produced a very few years ago. In connexion with this subject it gives us sincere pleasure to witness the efforts that have been made to establish a College of Chemistry; such an institution would be far more valuable to the country than a score of sugar islands or a continent of colonial dependencies. There are in Britain materials of manufactures which have never yet been made available, but which, we have no doubt, might, by the agency of chemical science, be rendered available for many agricultural and commercial purposes, which would increase the amount of employment for the industrious, and greatly extend the prosperity of the entire community. Professor Kane's admirable work on the "Industrial Resources of Ireland" contains abundant proof of our possessing the materials for a vast accession to national wealth, which have been hitherto too much disregarded. We have reason to believe that this is signally the case in respect to the materials proper to be worked up in fictile ware. It is pretty generally known that the applicability of flints to this manufacture was discovered by accident; and there can be little doubt that a series of judicious experiments with our native clays and silicates would lead to the discovery of many varieties of manufacture, so as to extend the range both of useful and ornamental production.

We have here copied a vase which in its form partakes more of the Egypto-Etruscan than of the Italo-Grecian style. There is some abruptness in the treatment of the curves, and a considerable degree of harshness in the base; but the design of the pattern exhibits great classical beauty, and is most charming in consequence of its perfect simplicity. The ansation, though not faulty, is less perfect than in the vase which we have last had under our consideration, and the edgings are rather deficient in depth and character. Still this is a most effective vase, being exquisitely rich in material, colour, and gilding. It is just such a specimen as we should have selected from choice to show the advantages that result from combining science with art, and bringing the chemist to assist the designer—*ita utrumque per se indigens alterum alterius auxilio eget.*

And here we cannot avoid noticing an objection which we have heard made to the purchase of such expensive pieces of porcelain for the use of the School of Design. It has been urged by some scrupulous economists that plaster casts would have answered all the purposes of instruction, and would, of course, have been far cheaper. But it must be remembered that plaster casts, however carefully taken, fail to give correct notions even of form. There are countless casts of the 'Venus de Medicis,' the 'Apollo Belvidere,' the 'Laocoon,' the 'Dying Gladiator,' and other similar miracles of ancient Art; and yet no one, however familiar with the casts, was ever brought into the presence of the originals without feeling emotions which no imitations could inspire. There is a coldness, or rather a deadness, in all plaster casts, which is universally felt, though not always understood. But in the designs for porcelain, though form is the most important and, in fact, the predominant essential, yet assuredly it is not

everything. The lucidity of the semivitreous material counts for something, and the perfection of the colouring and gilding must be regarded as well as the mere outline of the pattern. We are not among those who wish that Governments should turn manufacturers. We deem that the general principle, "*Laissez nous faire*," is as applicable to the arts as it is to commerce; but science stands upon a different footing, and it is notorious that the superiority of the manufacturers of porcelain at Dresden and Sèvres arises chiefly from the attention which the Government has given to the working out of all the scientific principles involved in the production. In all the cases which we have had under our consideration, the chemical combination of colours and materials deserves not less attention than the artistic beauty of pattern and design. Unfortunately, our manufacturers are too strongly wedded to merely tentative processes, and we fear that there is too much ground for the accusation of our being both unscientific and unartistic.

"Pudet hoc opprobria nobis
Et dici potuisse et non potuissi refelli."

Which we may venture to translate—

We feel these charges galling to our pride,
But, oh! we feel they cannot be denied.

Mr. Wilson has not confined his attention to porcelain; he has enriched the collection of models for the use of his pupils in the School of Design, at Somerset-house, with some exquisite specimens of the Beauvais ware; but having in our last number drawn so very largely on this department of the Exposition, and given so many illustrations of the progress which the French have made in this branch of production, no advantage would result from adding any further illustrations. We must, however, be permitted to express our confident belief that the materials for this manufacture are even more abundant in England than they are in France, and that the production of similar articles, which unite superior elegance with extraordinary cheapness, may be beneficially made to form a branch of the staple industry of the British community. We live in an age when the encouragement of native industry has been inscribed on the banners of every party, and introduced into the declamations of every public orator. This is neither the time nor the place to enter into a discussion of the various plans and projects that have been proposed to facilitate so desirable an end, but we must not loose sight of the two great elements of all real encouragement of industry—the supply of materials to work with, and of models to work from; science must be employed to discover the one, and art solicited to supply the other. The very important Report on the Occupations of the People, recently published by her Majesty's Government, shows that the amount of agricultural employment has not only remained stationary during the decennial period included in the census, but has actually retrograded; so far from supporting its proportionate share of the increase of population, agriculture does not maintain the same aggregate of absolute numbers that it did ten years ago. A vast increase of the duty of finding employment, and consequently of finding support for an increased population, has been thrown upon manufactures, and it is consequently the duty, not only of every statesman, but of every citizen, to see that measures should be taken to enable manufactures to bear this weight of new and increasing responsibilities. We believe that the fictile branches of industry are those which are most capable of immediate and profitable extension; we believe that, by the united efforts of the chemist and the designer, the British potteries may be made to take another advance as great as that which has immortalized the name of Wedgewood, and we know that our exertions to promote so beneficial a result have been far from unproductive.

It is impossible to overrate the importance of forming a Museum of Manufactures in connexion with the School of Design in Somerset-house; we honestly believe that Mr. Wilson's exertions to accomplish this object entitle him to rank as a national benefactor. But most of all are we impressed with the feeling that the objects which he has purchased from the Parisian Exposition are those best calculated to direct attention to our national deficiencies. We must for an instant direct attention to the porcelain vase which we have copied. The purity of its

curves is complete; there is no point of view in which it can be contemplated that does not at once give satisfaction to the mathematical precisian. The ornamental colouring and gilding (of which a wood-engraving can, of course, give no conception) display a skill in the chemical manipulation of colours which we have never seen surpassed, and the drawing of the pattern approaches to the highest perfection of delineative art. There is a very remarkable display of mathematical skill in the treatment of a spheroidal form, which will admit, without any violation of propriety, a rectangular ansation. It is true that we have many instances of similar skill in the Italo-Greek vases, improperly called Etruscan; but the artists of ancient times seem always to have approached such a combination with a great degree of timidity, and to have dreaded the proximity of failure at every point where a curve, however flat, showed anything like an approximation to a rectilinear form. Amidst the multitude of nonsense written by the Alexandrian commentators on the subject of plain geometry, there are some notions occasionally suggested which are not unworthy of attention; and among them we may notice the hint of Proclus, that a straight line, when occasionally introduced, serves to help the mind in adequately conceiving the flexures of an accompanying curve.

How far different curves may be regarded as symbolic of different passions and emotions, and consequents suggestive of different trains of association when presented to the view, is a subject which we should gladly see rescued from the mass of absurdity with which it was overwhelmed by the Alexandrian commentators. The vase under our consideration would furnish a very appropriate text for such a dissertation, but the discussion would incur the chance of the ridicule which has immortalized Dean Murray, who astounded a committee of the House of Commons by proposing that religious instruction should be combined with every course of mathematics. To mend the matter, the very reverend blockhead, when asked if such a course could be called pure mathematics, replied that he did not see how the introduction of religion could render mathematics *impure*. Lest we should incur the suspicion of imitating a dignitary who did not understand the most simple of the technical terms of the science on which he ventured to dissertate, we shall resist the temptation; and perhaps, after all, the sentiment of curves would only be deemed a fit companion to George Canning's "Loves of the Triangles."

In the patterns on vases we are rather disposed to complain of the too great abundance of mythological designs. In spite of our classical prejudices, which we confess to be very strong, we doubt whether subjects so unfamiliar to the mass, and which even in the minds of the educated are dissociated from the chief source of their strength and vitality, should be chosen as the most appropriate to the works of higher Art. We are sometimes tempted to imitate the patriotic Syrian, and exclaim, "Are not Pharphar and Abana, the rivers of Damascus, better than all the rivers of Syria?" or, without any metaphor, does not modern history, and, still more, does not mediæval legend furnish subjects nearer to our hearts and sympathies than the mythology of Greece and Italy, and, at the same time, not less deficient in poetic beauty, nor less capable in subserving the purposes of the highest Art? Is not every canto of the "Faëry Queen" a gallery of paintings? Has not Ben Jonson created forms of loveliness which an artist should love to embody? and is there not a whole world of poetic creation in the pages of Shakespere? We say nothing of the legends of the saints, lest we should be accused of pointing to a Christian mythology; but our popular ballads are pre-eminently suggestive of subjects appropriate to the decoration of vases, and we should rather see artists consult Percy's "Relics" than Tooke's "Pantheon."

Among the sets of porcelain ordered by Louis Philippe we saw one, not yet completed, which was ornamented with views of the most beautiful landscapes included in the royal parks of St. Cloud, Fontainebleau, Versailles, &c. Notwithstanding the beauty of the execution, we doubt whether porcelain is a proper material for landscapes elaborately finished in the style of cabinet pictures. Articles of this kind appear to us a little too much like the pictures on ornaments of *papier mâché*, where it is scarcely possible to avoid the temptations to exaggeration of colour, and seeking after staring effect. The best landscape which we have ever seen on porcelain was a view of Florence, produced at John Ridgway's; and even in this the lustrous glaze and consequent superabundance of reflected light greatly abated the effect produced by the exquisite beauty of the execution. In the best French porcelain vases, at least in those from which we derived most pleasure, the character of the pattern more nearly approximated to sculpture or relief than to painting. We incline to believe that it is a mistake to seek for elaborate pictorial efforts on a glazed or glassy surface; and the vase before us is one well calculated to support such a belief, for it is far more effective than many on which extraordinary pains were bestowed to give the details of a minutely-wrought picture.

We have already mentioned that one of the vases purchased from the Exposition for the School of Design is a very clever imitation of ivory in porcelain. Carving in ivory has, within the last few months, become quite the rage in France, and the most exquisite workmanship has been displayed on brooches, ear-

rings, necklaces, bracelets, and other ornaments of this material. But the beauty of some of the images and groups of figures which have been carved in ivory surpasses that of the mere ornaments, and must be seen to be fully appreciated. Mr. Benjamin Cheverton, of Camden-town, has indeed invented, or at least brought into full use, a process for copying on a reduced scale, in ivory, the finest of our existing statues, and his collection of these copies is well worthy of a visit from all who take an interest in the ingenious productions of Art: still these productions are merely copies taken by mechanical means, while most of those displayed at the Parisian Exposition were original sculptures. Mr. Wilson has purchased several of the best specimens, and we deem them the best models that could be set before those who are studying to revive the old art of carving in wood. We must, however, not omit to mention that, in the shops of Havre and Rouen, we saw several specimens of carving in ivory which were superior to any exhibited in the Parisian Exposition; and in the latter city we saw a crucifixion, about fourteen inches in height, superior to any other piece of minute sculpture that we ever beheld.

We need not dwell at any length on the specimens of stamped leather which have been purchased for the use of the pupils in Somerset-house. It would be impossible to give any correct notion of their effect in an engraving, and, moreover, they belong rather to the category of mechanical imitations than to that of artistic production. We may, however, notice that in the Boulogne Exposition we saw this material very effectively applied to the decoration of a bracket; and, as it combines real lightness with a great appearance of solidity, we think that it may be very effectively applied to such a purpose.

Mr. Wilson has imported some very pretty pieces of inlaid work, which are not only valuable in themselves, but suggestive of patterns for various other materials. The designs are very simple, and the execution quite artistic, but the patterns have not sufficient novelty to render it worth while to engrave them. Notwithstanding the increased popularity of carpets, many of the wealthy classes in France adhere pertinaciously to the inlaid and polished floors, which formed the pride and boast of the palaces of Louis XIV.; and tiled floors are occasionally introduced into new houses. The house-decorators in France, indeed, insist that carpets are only suited to drawing-rooms and bedrooms, and that they are quite out of place in libraries, picture-galleries, and dining-rooms.

Since the Exposition has been closed, the art of encaustic carving of wood has made a very considerable progress. We have already stated that this art consists in impressing figures in relief on wood by means of an iron mould, heated to a degree sufficient to burn out or brand the pattern without destroying the material. By this means very perfect copies of various designs in relief have been produced; and the heated iron gives a rich dark colour to the wood to which it is applied, and thus greatly contributes to the effect of the design. Some mechanical difficulties still exist in the application of this art, which otherwise would probably have become very extensive. The latest specimens of it we have seen were ornaments for the panels of a pulpit, consisting of Scripture subjects treated with great skill and delicacy. In Catholic churches the pulpit occupies a less prominent position, and holds a far more subordinate character than in Protestant places of worship, and yet we generally find that the Catholics bestow greater care on its decoration.

The art of casting in metal must not be regarded as purely mechanical: the recent improvements which it has received in Germany, France, and England, entitle it to rank among the superior classes of artistic decoration.

The gate of La Madeleine* (far the most beautiful of the modern churches of Paris) is one of the most magnificent castings which has been produced in modern times. The design is elaborate without being complicated, and, while there is a sufficient variety in the details to give exercise to the imagination, there is a beautiful simplicity in the *tout ensemble* which harmonizes gracefully with the external architecture of the church. La Madeleine is the only Christian edifice that we have ever seen which reconciled us to the adoption of the Grecian temple as a model in ecclesiastical structures. Viewed externally it is a perfect architectural gem. We have only given one panel of its splendid entrance-gate, and we doubt whether this will sufficiently illustrate the magnificent effect of the double doors. But our chief object in copying it is to point attention to the very skilful treatment of details in this design; every portion of the pattern, however minute, has direct reference to a grand and harmonious whole: the spectator does not lose sight of the unity even for a single instant. In this respect the gates of La Madeleine are far superior to those in the grand archway leading from Hyde-park-corner to Buckingham Palace, in which the pattern seems to want completeness and purpose, the arabesques having no discernible relation to the shields with the royal arms which form the centres. In fact, these shields appear to have been an afterthought, which required some clumsy contrivance in order to have room made for their insertion. We can remember but one pair of gates in England which at all approach those of the Madeleine in unity and completeness; they are erected in Bolton, and were, we believe, originally cast from a model designed for the gates of the Seraglio at Constantinople. In England, and, indeed, in all Protestant countries, there has long been much timidity displayed in using the decorative arts for ecclesiastical purposes, and the interior of La Madeleine may well be regarded as a warning against the use of gaudy and almost meretricious ornament. But we cannot conceive any objection likely to be raised against the use of decorated gates and doors similar to that under consideration. On the contrary, we think that they may be so constructed as to suggest religious feelings, or at least to deepen the impression which ought

* The erection of this splendid edifice was commenced in 1764, by Constant d'Ivry, who died in 1777, and was succeeded by the architect Coulure, who destroyed or changed all that had been done; notwithstanding these interruptions, however, the building proceeded, and was considerably advanced in 1790 (two millions having been expended on it), when the revolution caused a suspension of the works. After a lapse of sixteen years, the Emperor Napoleon proposed to convert the building into a Temple of Glory, dedicated to his armies. The present edifice was, in consequence, commenced in 1806, from plans by M. Vignon, who totally demolished the former structure. In 1814, the works were again suspended on account of political events; and no progress was made till 1816, when Louis XVIII. directed that the pile should be completed as a church, and that it should contain monuments to Louis XVI., and his Queen, Marie Antoinette, their son, and Madame Elizabeth. At the revolution of 1830, the popular feeling was in favour of carrying into effect Napoleon's views with regard to the destination of the building; this idea has, however, been relinquished. The form of the Madelaine is a parallelogram, of about 336 feet by 130. A basement, of eight feet in height, supports a superb peristyle composed of fifty-two columns of the Corinthian order, entirely surrounding the edifice. On the north and on the south are portals surmounted by trigonal pediments: that to the south is adorned by a fine bas-relief, the work of M. Lemaire, representing the Saviour granting a pardon to the Magdalen. The plinth bears the following inscription:—"D. O. M., *sub invocatione Sanctæ Magdalenæ*." The entrance to the church is by a double porch. On each side is a chapel; one for baptism and the other for marriages. The nave is ornamented by Corinthian and Ionic columns, elevated on the same basement, and is lighted by three cupolas. In a semicircular recess, at the upper end of the church, is the choir, decorated with Ionic pilasters, which extend along the two ailes. On each side of the edifice are three chapels. Six paintings, representing events in the life of Saint Magdalen, are intended to fill the semicircular spaces above the chapels. They are intrusted to the pencil of M. Paul Delaroche.

to be produced by the mere sight of any ecclesiastical edifice.

Cast frame-works of iron, bronzed over by some peculiar process, have been of late very largely used for the decorations of the high altars, and for the screens of cathedrals in France. We do not think that they harmonize well with the massive dignity and sombre grandeur of the Gothic cathedrals: there is a jauntiness and levity in their aspect, producing somewhat of the same effect as the introduction of a modern man of fashion into a company of the grave Benedictines of the middle ages.

In our preceding number we quoted Huart's humorous attack on the locksmiths of Paris, and his clever exposure of those contrivances for security which are so complicated as to give as much trouble to the proprietor as to the person illegally seeking entrance. Our own sentiments respecting the endless variety of safety-locks very closely accord with those of the clever Frenchman; but there is a very different question raised by the display of locks in the Exposition, which merits the serious attention of our English artisans, namely, the practicability of rendering locks contributory to domestic decoration by making them ornaments in themselves. To some extent this has been tried in England by introducing finger-plates and knobs of porcelain or *papier mâché*; but these do not come from the locksmith, and are irrespective of his occupation. The French artisans have applied decorative taste to the metallic covering of the lock, raising rich ornaments upon it in high relief; and, as this may easily be effected by casting, a handsome ornament may be formed out of an indispensable object at a moderate price. In the design for the accompanying lock, which

belongs to the best style of *La Renaissance*, our attention is first engaged by the ease and elegance of the scrolls and curves which harmonize with each other, apparently without an effort, and, whether salient or re-entrant present no appearance of being forced in order to accommodate themselves to the size of the pattern. So delicate has been the management of the designer that even the keyhole presents no awkwardness, but falls naturally into place between the reverses of the major curves. There is, perhaps, a little more complication in the design than is necessary, particularly about the centre; the artist seems to have forgotten that the lock of a door is usually in very deep shadow, where the effect of elaborate tracery must necessarily be lost. This circumstance, however, is in some degree compensated by the vigorous precision of the design, and the perfect sharpness of its relief. In locks, indeed, sharpness of execution is essentially necessary to prevent the loss of any portion of the light which falls upon the surface.

It must also be taken into account that a lock is viewed from above, and to this circumstance the designer of the lock which we have engraved has scarcely paid sufficient attention. The upper scrolls seem to press too strongly on observation, and to prevent attention from being sufficiently directed to the elaborate tracery beneath.

The finger-plates which have been made to match these locks are equally meritorious in design and execution; but the decorative art has been carried further, and applied to the box into which the lock is shut; knobs have also been wrought to match these locks and keys, and handles have been similarly brought to aid in the general effect of house decoration. The specimens purchased for the School of Design were selected from the best articles in the Exposition, and we earnestly recommend the study of them to British artisans.

The first of these knobs, to which we wish to direct attention, deserves notice from its judicious treatment of scrolls in proper subordination to the most simple of all curves—the

circle. The circle is everywhere dominant, and yet is everywhere relieved by scrollwork, so as to prevent the impression of wearisome repetition or tame uniformity. We have seen a pattern of this style, and very nearly of the same character, very successfully used in the centre panel of a three-panel iron gate at one of the ministerial hotels in Paris. It is, however, a style which has a constant tendency to run into formalism, and should therefore be always treated with great delicacy and caution.

It is scarcely necessary, we trust, to make any apology for devoting our space and attention to the description of these small objects. In order to obtain that most desirable of all results — the artistic education of our entire people—no object can be regarded as unimportant which may in any way contribute to so desirable an end. We must never forget a maxim which we have long laboured to impress on the minds of our readers—that beauty is as cheap as ugliness, and quite as easily attainable if the mind be trained to its search. There has been too long an obvious tendency in this country to degrade the artist into the artisan; we wish to reverse the process, and raise the artisan to the rank of an artist. Why should our keys, and locks, and knobs, not receive the decorations of which they are susceptible, and which would make no material addition to their price? These objects would not only exhibit the taste of the possessor, but the demand for them would improve the taste and even raise the character of the manufacturer; the knowledge that artistic beauty was required by the purchaser would inevitably set the workman on a course of invention and self-instruction. The memorable declaration of the Roman poet is true, not merely of nations and individuals, but of entire classes of society—

"Ingenuas didicisse fideliter artes
Emollit mores, nec sinit esse feros."

A great moral result is obtained by combining artistic skill with manual dexterity; the moral and intellectual powers are roused from their lethargy; the dormant faculties are awakened; the man feels that he has ceased to be a machine. The taste of the Parisians is proverbial; but care has been taken to surround them everywhere with objects likely to call out the faculty of taste into active exercise, to develop its powers and to strengthen its decisions. It is only within the last few years that Englishmen have divested themselves of their absurd suspicions of the people, and laid aside the prejudice that if objects of taste were freely open for public inspection they would soon be mischievously and wantonly defaced. The National Gallery and the British Museum have abundantly and triumphantly refuted this calumnious notion, and we trust that the Museum, which we hope to see attached to the School of Design, will still further refute this perverse imputation.

The second door-knob which we have copied is of a different character from that which has just engaged our attention, and, though equal to it in effectiveness, is not so conspicuous for its artistic skill. The central head is a work of high pretensions in Art, and the management of the hair is very judicious. We, however, doubt the propriety of using the human figure, or any part of it, in ornaments of this kind. Such decorations too forcibly remind us of the comical vengeance taken by a Northumbrian on some one who had given him deep offence. He had a cast of his enemy's face fixed as a rapper to his door, so that every visitor was compelled to pull his nose whenever he wanted to gain admittance. In the design before us some ingenuity has been shown in adopting the oval of "the human face divine" to the exterior oval of the pattern. The scrolls also have considerable merit, and there is no break in working out the conception. Since these kinds of ornament have come into fashion the profession of modelling has received a great extension in France, and we have been informed that moulds and models have begun to form a considerable item in the French exports. This is a circumstance which must not be left out of our estimate of the national advantages to be derived from extending the arts of design to such subsidiary objects as those under our consideration. The maxim, "*De minimis non curat lex*," is utterly inapplicable to matters connected with the Fine Arts. It is, in fact, impossible to conceive the existence of any object which has not a tendency, or rather a direct agency, in improving taste on the one hand, or perverting it on the other.

The next cast to which our attention is directed has a great deal of originality. It has been boldly conceived and as boldly executed; but here our praise must end. There are traces of capriciousness and a tendency to working out some conceit inconsistent with the requisites of the highest Art. We feel also that there is a want of precision in the idea intended to be conveyed, and that there has been an overstraining to produce effect in the management of the accessories and details. It is not

"Totus in ipso teres atque rotundus."

Still the details possess considerable grace and elegance, the scrolls are delicately treated, and

the little bit of interlacing is admirable. We cannot, however, reconcile ourselves to the

horseshoe frame and system of radiation which surrounds the head, and are persuaded that the design would have been improved had this accessory been omitted.

The last knob which we deem it necessary to copy is one of very great simplicity in design and exquisite beauty in execution. The foliated scroll, though one of the most hackneyed ornaments in the whole range of decorative art, is here so treated as to produce all the effect of novelty, particularly in the osculation and intertwining of the curves. There is much skill manifested in the precise accommodation of the pattern to the space which it is designed to occupy, and the design is perfect in the essential points of totality and unity.

Invention has only just begun to be applied to the decoration of keys, and we have not copied any of the patterns hitherto produced because we have not seen one which we could hail as completely successful. Some, however, are not a little whimsical, and fortunately they can easily be understood from description. We have seen one key in the form of a fish, the wards being formed by the radiation of the tail; on the contrary, another, representing a dog, had the wards arranged in the head. Such conceits are perfectly puerile, and can only be mentioned to be reprobated. Something, however, is gained when the key is recognised as an object susceptible of ornament, even though we cannot easily predict the form of decoration which will be found to suit it best.

The most perfect specimen of casting in iron which we have yet seen, is that which we have copied in the accompanying engraving. Every portion of the delicate tracery is so carefully executed, and every minute detail so completely brought out, that the founder seems to

have entered into fair competition with the sculptor or engraver. In fact, the foundry appears capable of producing the precision of the Mint. Now that iron is used for such multitudinous purposes, to which some years ago it was believed perfectly inapplicable, we trust that the decorative powers of this metal will excite the attention of designers, especially as the example before us shows that iron possesses ductile capabilities greater than was generally suspected.

The last object from Mr. Wilson's collection to which we have to invite the attention of our readers is a bronze vase in the style of Louis XV., in which the chief defects of that style have been pretty successfully avoided. Still the style is one which we cannot approve; the attempt to tell a complicated story by the figures on a vase, however ingeniously devised or executed, is one which we think can rarely if ever succeed. Even the Barberini vase is in

this respect a failure; the story told by its beautiful figures has been a riddle and a perplexity to the learned; volume after volume of dissertation has appeared on the subject, and the question is still very far, indeed, from being satisfactorily set at rest. Independently of this objection we think that the introduction of statuary formations into the substantive designs of vases is an artistic error, for it involves a departure from the idea of the natural and primary purpose of a vase, that is, a vessel of capacity. We have already disclaimed the advocacy of the utilitarian theory of beauty; but we do not run into the opposite extreme, and assert that there is no connexion whatever between usefulness and elegance. It is certain that nothing more forcibly wakens pleasurable emotions than the perfect adaptation of means to ends; but in statuary vases this adaptation is necessarily laid aside in the very form and outline of the entire design. Even Minton's bacchanalian jug, which is one of the best blendings of statuary with vessels of capacity that has yet been produced, was in this respect less successful, that it failed to give any suggestion of its being perfectly suitable to the purpose for which it was designed.

Once, however, that the general objection to statuary vases is conquered, we think that the vase before us deserves very high praise. Though the style appears faulty, yet the design in that style has considerable merit; great skill is shown in the artistic grouping of the figures, and in making the most of the effect from the projection of shadow. The curves are perfectly symmetrical; and the lower part, which supports the statuary, is not only unobjectionable, but in the highest degree effective.

It is not our purpose to dwell upon the scientific importance of many articles displayed in the Exposition, but there are two matters very closely connected with the Decorative and the Fine Arts which require a few words of observation, and these are electro-chemical apparatus and the Daguerrotype. The first is intimately connected with the subject we have just had under our consideration, the application of the metals to decorative purposes. The susceptibility both of iron and brass of oxygenization is an obvious objection to their being much employed for decorative purposes, since a taint of rust would not only impair the lustre of the metals, but would destroy the harmonious proportions of the design, particularly when such delicate tracery was introduced as that which we have copied in the iron pattern. Now, a means of gilding or plating which would completely cover the surface of the susceptible metal, and at the same time leave the pattern uninjured, is, of course, the most efficacious means that could possibly be devised for removing this objection to the use of brass, and more especially of iron. It is, therefore, gratifying to add, that we have seen some specimens of iron electrically gilt which have been subjected to very severe chemical tests without suffering the slightest injury.

Many new improvements, or supposed improvements, in the Daguerrotype were displayed in the Exposition, and they certainly have brought the art of fixing shadows to a very high degree of perfection. But to the artist, the only value of this process is to direct his attention to the vast difference that there is between a judicious imitation of nature and a servile copying of nature. We are not going to enter into a discussion of this matter in relation to the higher branches of Art; we only mention it to prevent any misapprehension of what we have said about flower-painting, which might be supposed to indicate a recommendation of closely copying natural growth, without affording scope for any exercise of the inventive faculty.

It struck us forcibly in the course of our visits to the Exposition, that the French have not devoted themselves so exclusively to mere ostentation in the articles exhibited as some of their own journals have represented. But we felt that this erroneous charge has arisen from a want common both to France and England—the want of anything like a system for house-decoration. When piles of ornament are crowded together in an Exposition, they naturally prevent spectators from separately examining their object and purpose in their in-

dividual existence, and it requires a still stronger effort to conceive with what objects they ought to be associated so as to make them produce all the effects of which they are capable. We have already noticed the importance of bearing this in view, in the observations we made on tapestry, carpets, cornices, and paper-hangings; but it is equally applicable to ornaments which are generally thought to have a more individual and isolated existence when applied to the purposes of decoration. In fact, a saloon or a room must be considered as forming in itself a single entity; it ought to possess the attributes of unity and totality as much as the pattern of a silk, or the design of a porcelain vase. An ornament which would help the effect of one kind of furniture would be a sad anomaly when presented in company with another set of furniture; and it was because that such anomalies were unavoidable in the Exposition, and that rich articles were displayed apart from the adjuncts necessary to fix their character and to bring out their proper force and purpose, that many parts of the Exposition produced on the spectators an effect of gaudiness and ostentation.

We do not know when the Museum of the School of Design will be sufficiently rich to render it an object of national importance; but, should that desirable consummation ever be attained, we should hope that the edifice will be sufficiently large to let each ornament appear in a separate compartment, so that it may be examined apart in its individuality, without the eye being distracted by associations derived from near objects, having no earthly connexion with that under examination beyond the accidental connexion of juxtaposition. If any proof were wanting of the propriety, or rather the necessity of paying attention to this caution, it would be found in the fact that the articles which we have engraved in this number appear far more beautiful and effective when examined in the School of Design than they did when displayed in the Exposition.

On looking over the official catalogue very carefully, and comparing our notes with our written description, we are not able to discover any important omission. Still, in so vast a number of articles, it is scarcely possible to have noticed everything that had claims to observation; and we must only express regret if we have passed over some works of merit. Science, as we have already said, did not enter into any part of our plan: it has its own peculiar walk, and we only referred to it in those places where it came in contact with Art.

There are two classes of objects on which we have designedly said but little, though they both belong to the department of decorative taste—we mean shawls and lace. But the effect of the patterns of shawls displayed at the Exposition rested almost entirely on the harmony and management of the colours. So far as configuration is concerned, there were no designs which appeared to us superior to those of England. The shawl manufacture in general exhibits a very limited variety of pattern, and we doubt whether the manufacturers, either of England or France, have yet tested its full capabilities.

The patterns of lace displayed at the Exposition have been already slightly noticed. We should here only wish to add that, on examining older specimens, we have been led to conclude that this branch of industry has retrograded in France, for none of the modern specimens at all came near some which we saw preserved by a Royalist family, and which had once belonged to the unfortunate Marie Antoinette.

We have noticed in the course of this article a small Exposition for the manufactures of the North of France at Boulogne-sur-Mer, which has just been closed. The Exposition in itself was not worth much; but, as an illustration of the effect that these displays are likely to have upon the progress of manufacturing industry in France, it may be deemed to merit some slight commemoration. The place in which the Exposition was held belonged to the range of buildings devoted to the Provincial College and Museum, the entrance being in the Rue Percée. Although the objects displayed were few in number, it must be remembered that provincial Expositions are a very novel extension of the original plan on which these institutions were based, and that the prohibition to remove any article sent for display during the period that the Exposition remained open was a great discouragement to the minor manufacturers of Boulogne and its vicinity, whose great harvest is obtained from the flying visitors of London. So strong is their trust in the custom to be obtained from these birds of passage, that the ordinary civilities to a purchaser are refused to English purchasers by some of the Boulognese; and we saw a lady subjected to more gross insult from a female attendant in Duchochois's shop in the Grande Rue than would have been displayed by the wildest of Indian squaws at the moment when her tribe flourished in all the insolence of victory. It was, in fact, the poverty of the warehouse-keepers, and the little attention paid to the matter by the manufacturers, which rendered the Boulogne Exposition little better than a mockery, so far as regarded the number and variety of the articles.

It was also manifest that those who undertook its management had either despaired of success or cared little at all about the matter. In Paris, if any article struck the fancy of a visitor, there was always some person in attendance ready to supply him with a card, directing him to some shop in Paris where articles of a similar kind were to be sold. No such attention was shown at Boulogne; and one would almost be disposed to assert that the only result which has arisen from the increase of wealth which the influx of English has produced to that town is, that we are worse treated there than in any other part of France. The female attendant at Duchochois's shop in the Grande Rue was "knight of the shire to represent them all;" but, if our fair countrywomen choose to submit to imposition and incivility when relieved by the charms of a foreign language or broken English, we can only say that they have little claims to our compassion.

In the Boulogne Exposition, as in every display of the kind which will be held in France for the next quarter of a century, the manufacturers of agricultural implements and other coarse productions in iron thrust themselves forward conspicuously and absurdly. In the Parisian Exposition we have already noticed that places of honour were assigned to pieces of machinery which no great English mechanician would allow to be seen in his warerooms. The cause of all this preposterous *fanfarade* is that the iron-masters and the iron-manufacturers of France are the greatest monopolists in the country; and that, having fenced themselves round by protective and prohibitory duties, they are interested in leading the French people to believe that their branch of industry is one of supreme national importance, which, if permitted to retain its privileges, it will in time surpass the rest of Europe. To such an extent is this most ridiculous of all delusions carried, that a gentleman—not inside a lunatic asylum, but inside the Chamber of Deputies, and representative of no very despicable constituency—asserted in our hearing that the reason why English machinery could be sold at a cheaper rate than that of France was, that the English mechanists sold their wares under first cost, for the purpose of commanding a market, and that the loss was made up to them either by private subscription or by the Government! But why should we be astonished at such a delusion being propagated in France, when we find it constantly assigned as a cause for the same result by several of those who are ambitious to pass for statesmen in Ireland.

Now, the Iron Exposition in Boulogne might well have been mistaken for a very bitter piece of irony on the supposed national advantages from the iron monopoly; the agricultural implements were fully double the price, and did not possess one half of the efficiency of those exhibited in the public market of any agricultural town in England. The cast-iron pipes, some of which were marked as worthy of peculiar honour, were not one whit better, and were, indeed, rather worse than those of the most ordinary English construction; and the cut nails were the very worst that ever came under our cognizance. The files could not, of course, be estimated properly without a practical trial; and that, for reasons which we believe to have been sufficiently valid, was peremptorily refused.

Two iron bedsteads of very superior merit were exhibited: one designed to be placed against the wall in the usual fashion of French bedsteads; the other and the more meritorious being intended for a central and conspicuous place, and being so arranged that the drapery would form the outline of a beautiful tent. We have already mentioned the rapid use of iron bedsteads in the estimation of the Parisians; even as foundations for decoration they are preferred to wood, because they can be covered with plastic ornaments of *chaurre impermeable* or *carton pierre*. We were rather surprised to find no specimens of cast-iron gates, balustrades, or fanlights in the Exposition; for the town of Boulogne contains some noble castings, both of gates and balustrades, which are well worthy the attention of visitors. We are glad to see that the subject of iron decorations is beginning to attract the attention of enlightened English travellers, and we gladly extract some account of the position of this art in Germany, which has just appeared in the correspondence of a contemporary journal:—

"I have not often seen a more plainly rich and appropriate building than the new Rath-haus at Fürth, near Nuremburg—a red stone edifice, which is more Saracenic or Norman than anything else. And in Nuremburg, whatever works and repairs are in progress are done in the right old style. I must except a Vulcanian spire on St. Lawrence's Church; though, perhaps, it might be urged as precedent that the old men of this peerless town were strong in the working of iron; and mixtures of metal and stone left by them might be cited as authorities; still the former was never to be confounded with the latter as a building material. As a decoration, it is copiously and beautifully employed. Apropos—you had recently occasion to look into our proficiency in working and casting iron and bronze, with a view to the decoration of our Parliament Houses, and to note our deficiency. Why should the Commissioners disdain to send for drawings of details from these Franconian towns, which might be executed very cheaply, and studied with advantage. Entering the superb Peller-house at Nuremburg, I was struck by a brass door-handle, wrought with almost the subtlety of a Cellini jewel; and again, turning out of St. Lawrence's Church, where I had been admiring a new pulpit by Herr Rodermund, which emulates Adam Krafft's Sacraments' Hanstein, I was caught by a specimen of yet coarser class, merely the guard over a fanlight (for the lower stories of the grand Nuremburg houses were warded like prisons); a composition of scrolls and leaves, with a fool and his bauble in the midst, so beautifully free in execution as to be worth instancing among a million other examples."

We should earnestly recommend the en-

lightened conductors of the School of Design to procure castings of the best gates, balustrades, fanlights, &c., in France and Germany; the expense would not be great, and the advantage to the iron-manufacturers of Warwickshire and Staffordshire would be incalculable.

There was an immense display of tobacco-pipes at Boulogne, sent from different manufactories; but we saw none remarkable for novelty of design or excellence of execution. A very fair collection of weighing machines, and a tolerable assortment of stoves and kitchen-ranges, completed what may be called the purely utilitarian part of the Exposition. Filatures from the spinning factories of Boulogne, Lille, and the Norman mills, were displayed; and particular care was taken to direct attention to the flax threads as a justification of the discriminating duties levied on the import of that article. The protected thread is, however, a very inferior article; and, however, the so-called system of protection may encourage the industry of flax-spinners, it must, in the self-same proportion, prevent the development of the industry of the linen-weavers.

The Exposition at Boulogne afforded additional proof of what we noticed in the account of that of Paris—the very great advance which the French have made in the weaving of diaper. They have given to their patterns for table-cloths and napkins all the precision and sharpness of outline which is found in figured satins. But the progress of this branch of industry has been rudely checked by the changes which have been made in the French tariff. The increase of the duties on the import of English thread has compelled the manufacturers of diaper to pay a higher price for an inferior article of their own country's production; and hence they are unable to meet the competition of English manufacturers in the foreign markets. It happened that our visit was made to Boulogne and its Exposition in the very height of the war fever, a circumstance which was not unproductive of interest and amusement. The enthusiasts of *La Jeune* France were very anxious to get Englishmen into discussions on the probabilities of war and all the possible consequences of hostilities; but they were equally perplexed and annoyed to find that Englishmen generally cared not one straw about the matter, and estimated the clamour of the newspaper press at its real worth—which was just nothing at all. Circumstances enabled us to have a pretty extensive intercourse with the manufacturing and commercial classes of the northern departments; and it may not be uninstructive to note some of the differences which we observed in relation to the questions of war and peace. In general, indeed, we cannot remember a single exception: the protected branches of industry were disposed to favour war, because that would effectually close the ports against English manufacturers and confirm their monopoly of the home market. Most of these gentlemen also were smitten with the passion for colonization and territorial occupation, which has recently seized upon the minds of many influential classes in France, and on some statesmen from whom better things might have been expected. The extent of the errors into which they have fallen may be estimated from the strange fact, that they attributed the preference shown for English manufactures in the South American markets to our possession of the West India islands! This surpasses the old tale of the connexion between Tenterden steeple and Godwin Sands, with a vengeance! These men have constantly in their mouths the *dictum* ascribed to Napoleon, "ships, colonies, and commerce;" but they do not see that they have reversed the order in which such desirable objects are to be attained: colonies do not generate commerce, it is commerce which leads to the only wholesome and sound system of colonization. Until the wars of the Revolution, Spain had more extensive colonies than any other European power; but, because she had not a corresponding amount of commerce, these colonies were a drain on the mother country, and in a progressive state of miserable decadence themselves. Schemes are published by various speculators pointing out a chain of valuable commercial emporiums which France might occupy in the Atlantic and Pacific Oceans, including the occupation of both sides of the Straits of Magellan; a position on the Isthmus of Panama to command the expected railroad or canal with which this isthmus may at some future period be intersected; and some dozen clusters of islands between America and Southern Asia. But, supposing all this were done, there remains the question, where is the traffic for this chain of emporiums to come from? And this is a point to which the speculators have not condescended to pay the least attention.

With respect to shipping, the party in France whose views we are examining has fallen into the strange error of aiming at the creation of a commercial marine by extending the amount of vessels of war. Here again there is a reversal of cause and effect: the English royal navy is the consequence of the mercantile navy, and in no way its source. Private enterprise has created the English superiority in the art of navigation; and the French Government can no more create at its will commercial shipping, and commerce to employ that shipping, than it can call into existence a new continent.

We have been forced into the discussion of these topics, because the French press, and no small part of the French public, advocate the system of Expositions as part of a gigantic scheme which is to enable France to surpass England both in manufacturing industry and in commercial wealth, and because, when the question of finding markets for products which could be obtained at a lower price in England is raised, the invariable answer is, "We must provide ourselves with colonial markets." It will be seen that the French have fallen into the notions of a colonial system, such as existed in the relations between Great Britain and its dependencies previous to the American Revolution, but which have been since exploded almost by universal consent. Bryan Edwards, in his "History of the West Indies," thus plainly describes the system:—"The leading principle of colonization in all the maritime states of Europe (Great Britain among the rest) was commercial monopoly. The word *monopoly* in this case admitted a very extensive interpretation. It comprehended the monopoly of supply, the monopoly of colonial produce, and the monopoly of manufactures. By the first, the colonists were prohibited from resorting to foreign markets for the supply of their wants; by the second, they were compelled to bring their chief staple commodities to the mother country alone; and by the third, to bring them to her in a raw or unmanufactured state, that her own manufacturers might secure to themselves all the advantages arising from their further improvement. This latter principle was carried so far in the colonial system of Great Britain as to induce the late Earl of Chatham to declare, in Parliament, that the British colonists in America had no right to manufacture even a nail for a horseshoe."*

We have the further testimony on this point of Adam Smith, who thus describes the origin of this spirit of monopoly with regard to the trade with our colonies:—

"To found a great empire for the sole purpose of raising up a people of customers may at first sight appear a project fit only for a nation of shopkeepers. It is, however, a project altogether unfit for a nation of shopkeepers, but extremely fit for a nation whose Government is influenced by shopkeepers. Such statesmen, and such statesmen only, are capable of fancying that they will find some advantage in employing the blood and treasure of their fellow-citizens to found and maintain such an empire. Say to a shopkeeper, 'Buy me a good estate, and I shall always buy my clothes at your shop, even though I should pay somewhat dearer than what I can have them for at other shops,' and you will not find him very forward to embrace your proposal. But, should any other person buy you such an estate, the shopkeeper will be much obliged to your benefactor if he would enjoin you to buy all your clothes at his shop. England purchased from some of her subjects who found themselves uneasy at home a great estate in a distant country. The price, indeed, was very small, and amounted to little more than the expense of the different equipments which made the first discovery, reconnoitered the coast, and took a fictitious possession of the country. The land was good, and of great extent, and the cultivators having plenty of good ground to work upon, and being for some time at liberty to sell their produce where they pleased, became, in the course of little more than thirty or forty years (between 1620 and 1660), so numerous and thriving a people that the shopkeepers and other traders of England wished to secure to themselves the monopoly of their custom. Without pretending, therefore, that they had paid any part of the original purchase-money, or of the subsequent expense of improvement, they petitioned the Parliament that the cultivators of America might for the future be confined to their shop: first, for buying all the goods which they wanted from Europe; and, secondly, for selling all such parts of their own produce as those traders might find it convenient to buy, for they did not find it convenient to buy every part of it. Some parts of it imported into England might have interfered with some of the trades which they themselves carried on at home. Those particular parts of it, therefore, they were willing that the colonists should sell where they could (the farther off the better), and upon that account proposed that their market should be confined to the countries south of Cape Finisterre. A clause in the famous Act of Navigation established this truly shopkeeper proposal into a law.

"The maintenance of this monopoly has hitherto been the principal, or, more properly, perhaps the sole end and purpose of the dominion which Great Britain assumes over her colonies. In the exclusive trade, it is supposed, consists the great advantage of provinces which have never yet afforded either revenue or military force for the support of the civil government, or the defence of the mother country. The monopoly is the principal badge of their dependency, and it is the sole fruit which has hitherto been gathered from that dependency."

Now, this is the very *beau idéal* of the colonial system, which has become strangely popular in France, and which has been still more strangely associated with the general and local Expositions of French industry. It was preached with sufficient boldness in Paris, but since then the recent exacerbations of temper arising from the disputes in Tahiti and Morocco have given wondrous currency to its preposterous delusions. It is needless to enter into any exposure of the absurdities on which such a system is based; the melancholy example of Spain abundantly proves that its results are equally calamitous, we should rather say equally destructive, to the colonies and to the parent state.

Those engaged in unprotected manufactures, and more especially the wine-growers of France, were equally free from these delusive speculations, and anxious for the maintenance of peace

* History of West Indies, vol. ii., p. 565.

in Europe. We need make no comment on this fact: it is already sufficiently notorious, and sufficiently significant.

Cotton-velvets were the chief textile fabrics of cotton in the Exposition; they were not remarkable either for skilful texture or exquisite colour. Woollen fabrics were, on the whole, creditable, though nothing was displayed which invited special remark; and we have already bestowed as much notice on the carpets as the specimens exhibited were worth.

Far the most pleasing articles displayed in the Boulogne Exposition, and the most attractive both for artistic excellence of design and skilful execution, were various articles of cabinet work exhibited by the brothers Martel. There were several tables of rosewood and mahogany equal to any that had been displayed at Paris; but the table which the exhibitors seemed to value most, being a specimen of gilding, inlaying, and raised figure, appeared to us a very signal failure.

We cannot take leave of the Exposition at Boulogne without noticing a subject, which, though not immediately connected with it, is not destitute of interest at the present moment. Most of our readers are aware that local Museums exist in nearly all the departments of France, but few are aware of the efforts that are now being made to give these Museums a local character and value. We extract from a contemporary an account of what has been done at the Museum of Rouen, and willingly give currency to the admirable suggestion with which it concludes.

"A Museum of departmental antiquities has been recently established, and is already infinitely superior to anything of the kind we have in England. It now occupies two sides of a quadrangle, in the middle of which are placed stone coffins, and other objects too large for the interior of the Museum, which is lighted by a series of stained glass windows of great beauty, rescued from one of the old abbeys. Of the contents of this Museum it will scarcely be necessary to speak at length, as it is what it purports to be,—a collection of archæological antiquities of this part of France from the earliest periods: statues, coins, charters, armour and arms, implements of all kinds, glass and crockery ware of all ages, reliquaries, carvings, models, ancient paintings, &c., arranged with taste worthy to be taken as a pattern for a similar collection in our own National Museum.

"Having been highly gratified with the examination of the Museum here, I have been induced to think that such a note as the present, joined with some suggestions which have been made to me by a practical archæologist at home, might not be without use. That one or more rooms may be devoted to such a collection in the new buildings in the British Museum, can scarcely be doubted; indeed, the importance of the subject in a national point of view would even justify altering the destination of sufficient space for the commencement of such a collection. A great majority of the visitors would be much gratified by the examination of English archæological remains. Such a collection as I desire to see ought, as has been suggested to me, to be classified according to the great eras of our history:—the Ancient British, Roman, Anglo-Saxon, Norman, and other periods being kept distinct; and where original objects cannot be obtained, casts or models should supply their place. The Museum here contains some models from the extraordinary carvings on the north door of the Cathedral, and from those of the interview of the Cloth of Gold at the Hotel Bourgtherolde. Can it be questioned that such a set of casts, executed, as these are, so carefully as to have every appearance of reality, are legitimate subjects for a National Museum? The British Museum, indeed, does possess a certain number of models of some of the Druidical remains, &c., but (although introduced into the printed catalogues) they are not visible, being put out of sight on high shelves, in a room devoted to coins, Etruscan remains, and I know not what else. These, together with duplicate coins, and a few of the ancient MSS. and charters, would form a respectable beginning, which would receive constant acquisitions from visitors."

We should add to this suggestion the consideration of the propriety of extending and giving character to our local museums, by rendering them the depositories of all that may serve to illustrate not merely the antiquities, but the natural history, the geological formation, and the arts and manufactures of the districts of which they may be regarded as the provincial capitals. Such an object would be well worthy the attention of the British Association during the course of its itinerancy; and, if the task was spiritedly commenced in any direction, it would be sure of finding imitators. In all our counties, or nearly in all of them, distinctive characters exist, partly derived from circumstances of history, and partly from circumstances of soil, climate, and production, which might be valuably illustrated by local museums. It is, of course, necessary to have one great national collection like the British Museum; but it would be impossible, in any building of reasonable magnitude, to give proper space to each county or district; and, besides, local collections lose much of their value, and most of their significance, when separated from the localities to which they belong.

We may remark that the French catalogues, both of their general and local museums, have greatly improved within the last few years. It is not long since they exhibited examples of anti-climax to the full as ludicrous as that which George Falkner introduced into his account of Ireland. "Ploughs were first invented by Triptolemus, a near relation of the goddess Ceres, and afterwards much improved by Mr. John Wynne, baker, of Dublin." This was, however, surpassed by the description given of the Hon. Mr. Boyle, in the index to some chemical lectures:—"Boyle, Hon. John, father of modern chemistry, and brother of the Earl of Cork."

The general impression resulting from a comparison between the recent French Expositions and those by which they were preceded, is that the French are becoming an industrial people, and that this change in their economy is leading to other changes in habits, manners, and customs. Mrs. Shelley, a very shrewd observer and clever judge of national peculiarities, has called attention to one alteration which is very obvious to every traveller. After describing her passage of the frontier, she continues:—

"By this time I became aware of a truth which had dawned on me before, that the French common people have lost much of that grace of manner which once distinguished them above all other people. More courteous than the Italians they could not be; but, while their manners were more artificial, they were more playful and winning. All this has changed. I did not remark the alteration so much with regard to myself, as in their mode of speaking to one another. The '*Madame*' and '*Monsieur*,' with which stable-boys and old beggar-women used to address each other, with the deference of courtiers, has vanished. No trace is to be found of it in France. A shadow faintly exists among Parisian shopkeepers, when speaking to their customers; but only there is the traditional phraseology still used: the courteous accent, the soft manner, erst so charming, exists no longer. I speak of a thing known and acknowledged by the French themselves. They want to be powerful; they believe money must obtain power; they wish to imitate the English, whose influence they attribute to their money-making propensities; but now and then they go a step beyond, and remind one of Mrs. Trollope's description of the Americans. Their phraseology, once so delicately and, even to us more straightforward people, amusingly deferential (not to superiors only, but toward one another), is become blunt, and almost rude. The French allege several causes for this change, which they date from the revolution of 1830. Some say it arises from every citizen turning out as one of the National Guard in his turn, so that they all get a *ton de garnison*; others attribute it to their imitation of the English. Of course, in the times of the *ancien régime*, the courtly tone found an echo and reflection from the royal ante-chambers down to the very ends of the kingdom. This had faded by degrees, till the revolution of '30 gave it the *coup de grâce*. I grieved very much. Perhaps more than any people, as I see them now, the French require the restraint of good manners. They are desirous of pleasing, it is true, but their *amour propre* is so sensitive, and their tempers so quick, that they are easily betrayed into anger and vehemence. I am more sorry on another score. The blessing which the world now needs is the steady progress of civilization: freedom, by degrees, it will have, I believe. Meanwhile, as the fruits of liberty, we wish to perceive the tendency of the low to rise to the level of the high—not the high to be dragged down to the low. This, we are told by many, is the inevitable tendency of equality of means and privileges. I will hope not: for on that hope is built every endeavour to banish ignorance, and hard labour and penury, from political society."

There is much truth, but there is also a little exaggeration in this description; still the general fact, that what used to be called "French politeness" is on the decline in France, cannot be controverted. We believe that this is in no small degree to be attributed to the progress of manufacturing industry, for the change is most obvious in those districts where extensive factories have been established. The operative has less time for mere words of courtesy than the agricultural labourer; he has larger wants, and more occupation of thought; his character necessarily becomes more grave and serious, but, while he thus grows less interesting or pleasing as a casual acquaintance, he becomes also more valuable as a citizen, and more instructive as a companion. Operatives that are employed in the production of coarse works of utility, where there is little or no scope for the exercise of the inventive faculties, and for the exhibition of the faculties of taste, have been always found more rude and blunt than those who are accustomed to aim at the production of the elegant and the beautiful. Were there no other reason for the cultivation of the Decorative Arts—if they yielded no intellectual pleasure and no mental elevation to the class of consumers—they ought still to be sedulously encouraged in a nation for the sake of producers. There is something of a balance in all human affairs: every great good has something more or less of an attendant evil. Now, the division, or rather the very minute subdivision of labour, which is the very essence of the perfection of the manufacturing system, has a natural and almost inevitable tendency to degrade man into a mere machine, by depriving him of nearly all opportunities of exercising his volition. Mere literary education is not sufficient to correct this tendency; the remedy must be sought in somewhat closer relation to the disease, for there is a veritable homœopathy in the moral life of humanity. It is possible to teach the workman that his productions form parts of that which is intended to have a decorative effect—that is, to bring principles of ideal beauty into actual life.

Sir Joshua Reynolds, in one of his discourses, the object of which is to show that taste is

friendly to virtue, says:—"Whatever abstracts the thoughts from sensual gratifications—whatever teaches us to look for happiness within ourselves—must advance, in some measure, the dignity of our nature. . . . . Perhaps there is no higher proof of the excellence of man than this,—that to a mind properly cultivated, whatever is *bounded* is *little*. The mind is continually labouring to advance, step by step, through successive degrees of excellence, towards perfection: which is dimly seen at a great, though not hopeless, distance; and which we must always follow, because we can never attain it. But the pursuit rewards itself: one truth teaches another, and our store is always increasing, though nature can never be exhausted. . . . . Taste, if it do not lead directly to purity of manners, obviates at least their greatest depravation, by disentangling the mind from appetite, and conducting the thoughts through successive stages of excellence, till that contemplation of universal rectitude and harmony, which, began by taste, may, as it is exalted and refined, conclude in virtue." Sir Joshua was no theologian: but, in a moral view, there is much truth in these remarks; which, as they are applicable to taste in its general acceptation as connected with moral perception, so they appear to us peculiarly applicable to a taste for the beautiful in the ordinary articles of utility and convenience. It has been often remarked that the first symptoms of the abandonment of dissipation by individuals of the operative class are exhibited in nascent tastes for ornament and decoration. We know an instance of a drunkard having been reformed by his having obtained possession of a garden. It is for this reason that we have ever exerted ourselves to extend the sphere and influence of the Decorative Arts, and in every branch of industry to establish close links of connexion between the ideal and the beautiful on one side, and the real and the useful on the other. The Decorative Arts have not only a mercantile value, but, in the best and highest sense of the word, a moral value. Nor need it be dreaded that this taste will lead to fastidiousness and dissatisfaction. It is justly observed by M'Culloch:—

"Fastidiousness, the discernment of defects, and the propensity to seek them in natural beauty, are not the proofs of taste, but the evidences of its absence. It is, at least, an insensibility to beauty. It is worse than that; since it is a depravity, when pleasure is found in the discovery of such defects, real or imaginary. And he who affects this, because he considers it an evidence of his taste, is, at least, pitiably ignorant; while not seldom punished by the conversion of that affectation into a reality. And it is the same in criticism, as applied to works of literature. It is not the eye for faults, but beauties, that constitutes the real critic in this as in all else. He who is most discerning in the beauties of poetry is the man of taste, the true judge, the only critic. The critic, as he is currently termed, who is discerning in nothing but faults, may care little to be told that this is the mark of unamiable dispositions or of bad passions; but he might not feel equally easy were he convinced that he thus gives the most absolute proofs of ignorance and want of taste."

We are anxious to impress upon the minds of our readers the advantage of cultivating a general taste for the Decorative Arts, and extending the applications of beauty to the articles in ordinary use in life, because we are aware that many prejudices exist on the subject, which, though rarely expressed, or even set plainly before the inner mind, are, nevertheless, very influential on the judgment. It is sometimes hinted that the cultivation of the taste for the beautiful may lead to the formation of habits of extravagance; and this mistaken theory was the chief foundation of the sumptuary laws, which are now forgotten, though they deserve to be noticed as an illustration of over tenderness in legislation.

It is well known that in the reign of Elizabeth (and of her immediate successor, James I.), several sumptuary laws were enacted—laws for limiting the expenses of dress. Elizabeth attached to regulations respecting articles of dress a degree of importance nearly equal to that of the monarchy itself. She issued numerous proclamations on the subject, and caused precepts to be sent to the companies, for the purpose of having her orders carried into effect. Thus, by her orders, in 1579, two members of the Ironmongers' Company were chosen to attend, with two men free of the Grocers', at Bishopsgate, from seven o'clock in the morning till six in the afternoon. They were to examine the habits of all persons passing through the gate. But, to do her Majesty justice, she was not by any means so outrageous as his Majesty King James, her successor. Some of his feats in putting down extravagance are thus described:—"James exceeded Elizabeth in his love for these minutiæ. 'The abuse growing by excesse, and strange fashions of apparrell, used by manye apprentises, and by the inordinate pryde of mayde servauntes and women servauntes, in their excesse of apparrell and follye in varietie of newe fashions,' caused that decorous monarch such uneasiness, about the year 1611, that the Mayor, by his orders, sent precepts to the wardens of companies, enjoining them to convene, and to harangue their several fraternities on this heinous sin. 'Mr. Warden Burrell,' on reading the precept to the Grocers' Company, 'made sundrye godly and charitable exhortacions to each to see reformacion made in his owne familye, accordynge to the meaning of the same;' and the Common Council afterwards embodied certain regulations into an act, in which every item of apparel to be worn, both by apprentices and maid-servants, with the kind of material composing it, or 'the stuffe, fashion, and goodnesse,' are detailed with the minuteness of a tailor or dressmaker. Apprentices were to wear 'no hat' the facing whereof should exceed three inches in breadth in the head; or which, with the band and trimming, should cost above five shillings; the band was to be destitute of lace, made of linen, not exceeding five shillings the ell, and to have no more work or ornament than a plain hem and one stitch. And if the apprentice should wear a ruff-band, it was not to exceed three inches in height before it was gathered and set into the stock, nor more than two inches in depth before the setting into the same stock. The collar of the doublet was to have neither 'poyet, well [whale] bone, or plaits,' but to be made close and comely, and, as well as the pantaloons, was to be made only of 'cloth, kersey, fustian, sackcloth, canvasse, English leather, or English stuffe,' and of not more than two shillings and sixpence the yard; his stockings were to be of woollen, yarn, or kersey; he was not to wear 'Spanish shoes with polonia heels;' or to have his hair with any 'tufte or lock, but cut short in decent and comely manner.' The London servant-girl was, if possible, more restricted. She was to wear no 'lawn, kambrick, tiffany, velvet lawns, or white wires on the head,' or about 'the kerchief, koyfe, crest cloth, or shadow,' but only linen, and that not to exceed five shillings the ell. Her ruff was on no account to be of more than four yards in length before the gathering, or settings in, or of greater depth than three inches; nor was she to 'wear any fardingal at all, great or little; nor any body or sleeves of wire, whalebone, or other stiffing [stiffening], saving canvasse or buckram only.'"

The taste for the beautiful in dress is just as innocent, and even as valuable, as any other; when sedulously cultivated it creates a demand for elegance of production; and that demand will very soon lead to supply, because, as we have often said, "Beauty is just as cheap as ugliness." The objection to cultivating the taste of the working classes is essentially the same as that which was urged against giving them education; and Wilderspin's reply is applicable in both cases:—

"A strange idea is entertained by many, that education unfits persons for labour, and renders them dissatisfied with their condition in life. But what would be said were any of the powers of the body to be in a certain case disused? Suppose a man were to place a bandage over his right eye—to tie up one of his hands—or to attach a ponderous weight to his legs,—and, when asked the cause, were to reply, that the glance of that eye might make him covetous—that his hand might pick his neighbour's pocket—or that his feet might carry him into evil company,—might it not be fairly replied, that his members were given to use and not to abuse, that their abuse is no argument against their use, and that this suspension of their action was just as contrary to the wise and benevolent purpose of their Creator as their wrong and guilty application? And does this reasoning fail when applied to the mind? Is not the unemployed mental faculty as opposed to the advantage of the individual as the unused physical power? Can the difference between mind and matter overturn the ordinary principles of reasoning and of morals? Besides, how is man to be prepared for the duties he has to discharge?—By mere attention to his body? Impossible. The mind must be enlightened and disciplined; and, if this be neglected, the man rises but little in character above the beasts that perish, and is wholly unprepared for that state to which he ought to have aspired."

The fact is, that, in order to create a national skill and aptitude in design, we must consider that a person is more or less educated in taste by every object with which he is brought in contact. In order to attain for the public adequate conceptions of beauty, we must endeavour everywhere to surround them with the beautiful. We have no doubt that the natural and picturesque advantages of Lyons have not been destitute of influence in producing the marked superiority of the Lyonese designers, not only over those of England and Germany, but over the designers in all other parts of France. This superiority was so manifest at the Parisian Exposition as to be quite incontestible; and it was obvious that designers in Lyons were surrounded by circumstances which rendered taste not a matter superinduced by education, but which entered into the business of life, and formed a part of every-day existence. Dr. Bowring, in his evidence before a select committee of the House of Commons on the silk trade, states that he was extremely surprised at finding in Lyons among every body connected with the production of patterns, including weavers and their children, an attention devoted to everything which was in any way connected with beauty, either in arrangement or in colour. He mentions having again and again seen the weavers walking about gathering flowers in the fields, and arranging them in their most attractive grouping. These artisans are constantly suggesting to their masters improvements in their designs; and it is said that, in almost every case where the manufacturer has had great success, there is always some individual in the factory who is the inventor of beautiful patterns. The Lyonese School of Design is deservedly celebrated. It is supported principally out of the funds of the city, assisted by an annual grant from Government; the students are instructed gratuitously. Any youth who shows the least aptitude for drawing, or for any other pursuit which may tend to the improvement of the manufacture, is gladly admitted into this establishment.

From one hundred and fifty to one hundred and eighty students, and sometimes as many as two hundred at one time, receive the benefits of instructions here given in every branch pertaining to the Fine Arts. Five or six professors are attached to this school. The professor of painting is a man highly distinguished in the world of Art. A number of the pupils are engaged in the study of anatomy. Many students are engaged in the delineation of the living human form. "I found," says Dr. Bowring, "a very beautiful child of three or four years old with thirty or forty students sitting round it." In another department the professor of architecture directs the studies of some of the pupils; he makes them intimately acquainted wtth every variation of the different styles, and it is his principal aim to prevent their confusing these one with the other. The knowledge of architecture is considered of importance for the invention of patterns of a stiff and formal character; as by this means their ornaments are correct and appropriate. A botanical professor has thirty or forty boys under him, engaged in copying the most beautiful flowers. A botanical garden is attached to the school. The most tasteful grouping of flowers is made an object of attention. A general professor of drawing gives instruction in landscape, and, in fact, in all the departments of Art which can in any way be made available to the production of tasteful things. The object of another professor is to show the young men how their productions may be rendered applicable to the manufactures; that is to say, how, by machinery, they can produce on a piece of silk cloth that which they have drawn on a piece of paper. The students receive a course of five years' instruction in this school; they are supplied with every thing but the materials on which they work, and their productions are regarded as their own property.

The French manufacturer considers that his pattern is the principal element on which he is to depend for his success; the mere art of manufacturing may be easily effected. He goes therefore to this "taste-producing" school, where he may select, from nearly two hundred boys, one whose taste is most distinguished; that boy is admitted into his house, probably at a small salary. The student thus taken out of the school soon obtains 1000 francs, or about £40 per annum. If his success is great his salary is increased to 2000, and then 3000 francs; and then very often the offer of partnership is made to those who have particularly distinguished themselves in their branch of the art. It is said that a great number of the most prosperous manufacturers of Lyons were originally students of this school. Thus all the painters, all the sculptors, and all the botanists at Lyons become manufacturers, and scarcely ever go out of the manufacturing circle. They receive the best instruction gratuitously, and are then at once qualified to earn their subsistence. By applying their talents to the production of patterns they are almost sure of a certain means of advancement; and thus there are few who are tempted into the higher walks of Art, where they would have to struggle with difficulty and uncertainty.

A National Exposition appears to us almost the only means by which taste can be brought to act on the various branches of industry collectively. In the ordinary course of events it will necessarily happen that some branch of industry will acquire a sudden development, either in the mechanical facilities of production, in superior excellence of material, or in beauty of design. Thus the cotton trade was almost created by Arkwright; porcelain was indebted to accident for the discovery of the importance of burned flints; and tasteful designs in pottery began and almost ended with Wedgewood. But improvements in any one art or branch of industry have a tendency to suggest improvements in various other branches, just as painting and statuary, though perfectly distinct in their principles, are found to have a constant action and reaction upon each other. The judicious calico-printer's designs, though not directly applicable to other textile fabrics, have nevertheless an important suggestive tendency, and may furnish hints, though not direct designs, to the silk-weaver and the carpet-manufacturer. In the same way the worker in wood may become indirectly the teacher of the worker in metal, and he who moulds the clays and earths may derive profit from both. The more the several branches of industry, and particularly the manufactures connected with the decorative arts, are kept isolated and apart, the more uncertain and unsteady their progress will be. If the persons interested in the progress of the decorative arts—and there is not a manufacturer of any kind in the kingdom but what is so—wish to produce a demand for tasteful design and beautiful execution in the articles of necessary and ordinary use, they must combine their exertions, and give "a long pull, and a strong pull, and a pull all together." The style called *La Renaissance* has become universally diffused, and has secured for itself a permanent existence by its having been originally applied to an immense variety of manufactures nearly at the same moment. It has been often said that this style bears marks of its mercantile origin, having grown up under the patronage of the princely Medici, whose wealth, rank, and power were originally derived from their extensive commerce. It is utterly absurd to make the circumstances of its origin a ground of objection to the style of *La Renaissance;* but in one respect its mercantile spirit was a decided advantage, and may suggest very valuable lessons. The applications of the style were from the first as numerous and varied as the manufactures of Tuscany; it fixed its stamp and impress everywhere; its influence was felt in the palatial edifices of the wealthy and in the humble cottages of the tillers of the ground. It was because the cultivation of this style was concurrent with an enlightened attention to all branches of industry which could be brought under the influence of taste that its prevalence became so great and its reign has continued so long.

If our manufacturers are anxious to give a similar impulse to the public taste, and to do for England what those greatest of merchant-princes did for Italy, they must exert themselves to have the march of improvement as nearly as possible uniform in every branch of industry over which its influence may be spread. Individual and isolated efforts have done much, and in a country like England must constantly be working out very valuable results. But a general improvement of the national taste can only be effected by a general movement throughout all the departments which have an influence in the formation of the taste. All the elements of perversion must be simultaneously assailed, and fashionable ugliness must be attacked in every quarter where it may be suspected of having possibly found a lodgement.

The desire of the beautiful was doubtless implanted in our minds for a wise and moral purpose. In reference to the beauties of creation, M'Culloch, with equal eloquence and logic, makes the following remarks:—

"We cannot look around us without being struck by the surprising variety and multiplicity of the sources of beauty of creation, produced by form or by colour, or by both united. It is scarcely too much to say that every object in nature, animate and inanimate, is in some manner beautiful, so largely has the Creator provided for our pleasures through the sense of sight. It is rare to see anything which is in itself distasteful or disagreeable to the eye, or repulsive: while on this, however, they alone are entitled to pronounce who have cultivated the faculty in question; since, like every other quality of mind as of body, it is left to ourselves to improve that, of which the basis has been given to us, as the means of cultivating it have been placed in our power. May I not also say, that this beauty has been conferred in wisdom as in beneficence? It is one of the revelations which the Creator has made of Himself to man. He was to be admired and loved: it was through the demonstrations of His character that we could alone see Him and judge of Him: and in thus inducing or compelling us to admire and love the visible works of His hand, He has taught us to love and adore Himself. This is the great lesson which the beauty of creation teaches, in addition to the pleasure which it affords; but for this we must cultivate that simple, and surely amiable piety, which learns to view the Father of the Universe in all the works of that universe. Such is the lesson taught by that certainly reasonable philosophy which desires to unite what men have too much laboured to dissever; a state of mind which is easily attainable, demands no effort of feeling beyond that of a simple and good heart, and needs not diverge into a weak and censurable enthusiasm. Much, therefore, is he to be pitied or condemned who has not cultivated this faculty in this manner; who is not for ever looking round on creation, in feeling and in search of those beauties, that he may thus bend in gratitude and love before the Author of all Beauty."

But the beauties of Art are scarcely less powerful, less direct, or less ennobling in their suggestions than the beauties of Nature. They necessarily direct attention to the wondrous conceptions of that Almighty Being who has not only called into existence, but has so wondrously adapted to each other the universe of matter and the universe of mind. Every triumph of human intelligence which is understood and appreciated becomes a source of moral elevation. It makes a direct appeal to our noblest sympathies, and warns us not to degrade the powers which are capable of being thus developed. Artists, indeed, have sometimes shown themselves unworthy of their high vocation, yet the lessons they have embodied in their works have not been without their influence on the world's morals, just as in the Spanish tale of "Don Guzman" some of the most signal conversions from vice were effected by the preaching of a hypocrite. There is much suggestive matter in the following paragraph, for which we are indebted to Mr. Duncan:—

"A pious acquaintance, remarkable for the quaint shrewdness of his observations, one day, when walking in a garden, having pulled a flower of exquisite loveliness, after expressing, in his own characteristic way, his admiration of its various beauties, took up a clod of the soil in his other hand, and naïvely, but emphatically, exclaimed, 'What, but Almighty power could extract that from this?' If there was anything ludicrous in the manner, there was nothing but truth and sublimity in the sentiment. Everything in the operations of the Creator is worthy of devout admiration, but I scarcely know anything in the inanimate world which brings together and concentrates so many wonders of designing wisdom and benevolence, as the structure and qualities of a flower—and assuredly not a little is added to the surprise and pious feeling with which this delightful production is contemplated, when we think of the crude materials from which it is elaborated. The beauty of form and colour, the sweetness of the fragrance, the delicate and skilful nature of the organization, the careful provisions, the forethought, the contrivance, the suiting of parts, as regards the propagation of the species, the adaptations to the subsistence and enjoyment

of the insect tribes—all produced by the artificial union of a few simple and apparently unfit substances—cannot fail to excite in the reflecting mind the most lively sentiments of astonishment, and to force upon it the conviction, that here, without doubt, is the finger of God."

This passage contains a cogent truth well and forcibly expressed; but the argument is capable of a much more extensive application. If the acquaintance took in one hand some clay and pebbles while he grasped in the other the finest vase produced at Sèvres or Dresden, his question would not less tend to excite wonder, love, and praise. For, in addition to the creative power exercised by himself, God has conceded to man a formative power, which may to some extent be regarded as secondarily creative; and which, whenever exercised, has in it something suggestive of the divine original. The world has been too long insensible to the moral and religious influences of Art; we grant that these influences have on many occasions been fearfully perverted; but we must not on that account discard them altogether, no more than we would abstain from food because gluttons have surfeited themselves.

We desire a National Exposition as an essential part of a judicious system of National Education; we wish to have the hand, the eye, and the mind, trained to beauty, for we know what are the valuable moral consequences that would result. Economically such a measure would more than repay the national cost of getting it up, by directing attention to industrial resources in the country which have not yet been developed. Three means suggest themselves by which a National Exposition could be attained in Great Britain: the task might be undertaken by the Government, by the associated manufacturers, or by some independent body as a matter of speculation.

The English Government has not the power of putting the same machinery into work in getting up an Exposition as that of France; it has not the same centralisation nor the same control over the municipalities. It is probable that the English Ministers would obtain from Parliament a sufficient grant for the erection of the building, the expenses of carriage, of watching, attendance, &c. But there would be a greater difficulty in selecting a jury to decide upon the admissibility or non-admissibility of articles to the Exposition; and this difficulty would be increased if a distribution of medals for productions of merit formed part of the plan, as it did in France. The expense could not be an objection of great importance in such a country as England; we believe that the money would be readily granted if the practicability of success was established. Vauxhall would be a very good site for a suitable building; there is sufficient space for an extensive display, and there is, moreover, an opportunity for separating the productions of the different branches of industry and classifying them more effectively than was accomplished in Paris. At Vauxhall it would be possible to attach a small steam-engine to the mechanical part of the Exposition, so as to show the nature and purpose of each piece of mechanism by exhibiting it in motion. Communication with the various manufacturers might be opened, in the first instance, through the agency of the Excise; and those branches of industry which are not subject to the operation of the Excise laws might be invited to enter into correspondence with a secretary to the Exposition appointed by the Government.

Government would require local juries as well as a central jury; for it would not be pleasant for manufacturers, after having incurred the expense and risk of sending their articles to London, to find them refused admittance to the Exposition at the end of the journey. It is not easy to discover how the Government should proceed in selecting local juries; anything like an exhibition of political partialities would be fatal to the entire plan, and, though we believe that no such partialities would be permitted to have sway, we fear that it would be impossible to escape the suspicion of them.

The success of the Parisian Exposition was in no small degree owing to the personal exertions of the enlightened Sovereign of the French. Louis Philippe is a first-rate mathematician, and well instructed, not merely in the abstract principles, but also in the practical applications of mechanical science; he takes pleasure in such pursuits, and, independent of their inherent value, regards them as the best of intellectual recreations. During the time that the Exposition remained open, the principal manufacturers of the articles exhibited were favoured guests at the Palace; and the conversation at the royal table was so conducted as to evolve such hints as were likely to lead either to the mechanical or the artistic improvement of the various branches of French industry. It is of course impossible to determine whether the nobles and courtiers of France really shared the interest which the Monarch felt in these subjects, but they assumed the virtue if they had it not; and this sympathy in the progress and improvement of manufacturing industry was not confined to the Ministerialists; it was manifested in at least an equal degree by the Opposition, so that it might be said that the Court and the Chambers of Peers and Deputies formed, during the period that the Exposition remained open, one great Council for the encouragement of Arts and Manufactures.

It would be very little short of absurdity for us to affect to believe in the possibility of such advantages being attainable for an exhibition of the products of British ingenuity and industry. Patronage of course would be given freely, liberally, and generously; but patronage is not sympathy: patronage humiliates, while sympathy exalts; patronage places everything at the direction of power, while sympathy stimulates to independent thought and action. It may be said—indeed it has been said—that there was no inconsiderable share of affectation and quackery in the emulation shown by the old aristocracy of the Faubourg St. Germain with the new aristocracy of the Chaussée d'Antin in their displays of anxiety for the progress and improvement of manufactures; the representatives of the old feudal families and of Napoleon's military chiefs are certainly liable to the suspicion of knowing nothing and caring nothing about the interests of artisans and shopkeepers. Still "Hypocrisy is the tax which Vice pays to Virtue." If the virtue did not exist, and if it had not been highly appreciated, its semblance would never have been affected. Even if the manufacturers of England were prepared to combine their efforts, and to join heartily with the exertions of the Board of Trade to get up a great National Exposition, we have anxious doubts whether they would meet with such a concurrence of sympathies from all the fashionable and influential classes as was manifested in Paris.

We believe, however, that greater reliance could be placed on one great system of machinery necessary to the success of a National Exposition. We feel confident that the newspaper press of England, laying aside all political jealousies and private feuds on such an occasion, would, like the press of France, help to secure a successful Exhibition, both by diffusing precise information as to the nature of the objects sought, and suggestions as to the best means for their attainment. Even the *Charivari* (the *Punch* of Paris) aided the success of the Exposition by its good-natured jokes, and, during the whole period that it was open, never sneered at the system. As journalists we cannot be insensible to the temptations which beset our order when any great novelty is proposed; ridicule of a great scheme is at once so easy to the writer and so amusing to the reader, that an editor must almost acquire for the occasion virtues beyond the common lot of humanity to escape from the invitations of the comic Syren. Had the Syrens who tried to seduce Ulysses suggested to him the composition of a travestie of the Trojan war, we fear that he would have burst his bonds and fetters, sung his companions into the same state of exaltation as himself, and forced his "floating capital" on the breakers. Still we think that, when a great national object was to be effected, the English journalists would close their ears against the invitations of that great charmer Momus—who seems to be the most faithful ally of Mercury—"charm he ever so wisely," and would seek to make the Exposition worthy of our name and nation.

The object of the Parisian Exhibition was twofold: it was designed to illustrate artistic skill in pattern and design, and also mechanical ingenuity in engines and machinery. Now, no person in England would refuse to give aid in promoting the first of these objects, because it is the obvious and immediate interest of our calico-printers, our silk-manufacturers, our poplin-weavers, our lace-makers, who have made such wondrous strides in artistic beauty within the last few months—we might almost say weeks—our workers in glass and porcelain, our decorators in paper, wood, brass, and iron, to have their designs extensively known and generally appreciated. There would be no difficulty on the part of the manufacturers in getting up an Exposition as extensive as could be desired for the purpose of illustrating the progress of the Arts of Design in England; and should this be attempted under the joint superintendency of the School of Design and the Board of Trade, we believe that it would not fail of success.

We have stated our reasons for doubting the power of the English Government to get up such an Exposition as that of Paris; we need say but little on the practicability of having it done by an association of the British manufacturers. In fact, the very first elements of association are wanting to British manufacturers; there is no unity, no cohesion, no *esprit de corps* among them. One might as well attempt to rig a ship of war with ropes of sand as to aim at effecting any great object by a general union of manufacturers.

It has been announced that an Exposition of the products of British industry is likely to be attempted next year under the patronage of the Anti-Corn-Law League. As the plan of this Exposition is not yet before the public, we feel that criticism upon it would be premature. But the delay which has occurred since first the announcement was made may be taken as a proof that the difficulties in the way are greater than had been originally anticipated.

Our own belief is, that the English Exposition ought to be exclusively confined to those branches of industry connected with the Arts of Design, and the display of materials susceptible of artistic decoration. This will give ample scope and verge enough for a very extensive display of valuable and interesting objects. We do not think that the Parisian Exposition was very successful in its combination of two principles so essentially distinct as artistic skill and mechanical ingenuity; but sure we are that the attempt to combine them in England would terminate in a signal failure. We are almost equally confident that an artistic Exposition got up under the joint superintendency of the School of Design and the Board of Trade, would be one of the most triumphant that has ever been displayed in Europe.

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MONTHLY JOURNAL OF THE FINE ARTS,

AND THE

ARTS DECORATIVE AND ORNAMENTAL.

ESTABLISHED IN JANUARY, 1839.

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